

UNIVERSITY OF CALIFORNIA
MUSEUM OF VERTEBRATE ZOOLOGY

Arnold, J. R.
Nevada: Nye Co.
1933

June 29 - Aug. 2
Zoology Field Class, (Summer), 1933
Nevada: Nye County

Arnold, J.

Catalog of specimens

pp. 1 - 18

Itinerary

pp. 19 - 58

Species accounts

pp. 59 - 97

For map of localities
see notes
of

E. Raymond Hall
Summer 1933

Catalogue

Arnold - 1933

Mammals

Birds, etc.

Toquima Range, 1 mi. E Jefferson,
7600 ft., Nye Co., Nevada.

June 29, 1933

~~99.~~

99. ♀ Perognathus parvus 160 - 91 - 24 - 9 - 14.9 grams
col. by E. R. Hall

~~100.~~

Sierra Nevada Mtns, 38 mi. E Colfax,
California. Main Highway.

June 27, 1933.

- ✓ 100. ♂ Sphyrapicus ruber

Toquima Range, 1½ mi. E. Jefferson,
7750 ft., Nye Co., Nevada.

June 29, 1933

101. ♀ Callospermophilus l. trepidus
215 - 75 - 36 - 19 wt 82.6 grams

- 102 ♀ Sylvilagus m. grangeri
ear - 66 - hind foot 94

- 103 ♂ Eutamias m. pictus
180 - (80) - 29 - 14 wt 37.6 grams

June 30, 1933

- 104 ♂ Perognathus parvus
185 - 106 - 26 - 9 wt 22.9 grams

- 105 ♀ Peromyscus g. sonoriensis
161 - 68 - 20 - 18 - wt 22.2 grams.



Toquima Range, 1 mi. E Jefferson, Nye Co.,
Nevada. 7600 ft. elev.

June 29, 1933

- ✓ 106 ♀ Spizella socialis arizonae wt 11.2 grams
col. by F. C. Gale

Toquima Range, 1 mi NE Jefferson, 7650 ft.,
Nye Co., Nevada.

June 30, 1933

- 107 ♂ Peromyscus crinitus col. by F. C. Gale
168-88-20-18 wt 17.9 grams.

Toquima Range, 1½ mi. E. Jefferson, 7700
ft., Nye Co., Nevada.

June 30, 1933

108. ♂ Eutamias

205-77-31-17 wt 60.7 grams

skull missing

109. ♂ Myotis

90-40-9-12 wt 6.9 grams

July 1, 1933.

110. ♀ Microtus mordax

embryo in right horn 24 mm
left

185-59-22-15 wt 50.6

ear & nose eaten
by ants.

111. ♂ Microtus mordax

180-63-22-15 wt 46.9

112. ♀ Perognathus parvus

176-100-24-8 wt 19.1 grams.

- 113 ♂ Perognathus parvus

187-105-24-9 wt 20.3

July 2, 1933

- ✓ 114 ♂ Spotted Towhee 35.4 grams - badly shot up

Arnold-1933

Toquima Range, N slope Toquima Mtn., 9400 ft., Nye Co., Nevada.

July 2, 1933

- 115 ♂ Eutamias m. pictus
183-89-28-15 wt 36.8 grams
116. ♂ Eutamias quadricinctatus
202-89-33-18 wt 58.7 grams
~~*~~
- 117 ♂ Callospermophilus
260-95-37-19 wt 167.1 grams

Toquima Range, SW slope Jefferson, 19,000 ft., Nye Co., Nevada

July 2, 1933

- 118 ♀ Callospermophilus col. by Paul T. Wilson
235-84-37-18 wt 145.8
dissected liver - spotted

Toquima Range, S.W. slope Jefferson, 9500 ft.

July 2, 1933

- 119 ♂ Ochotona col. by F. C. Gale
170-.7-30-23 wt 118.4 grams

Toquima Range, 1 mi. E Jefferson, 7600 ft., Nye Co., Nevada.

- ✓ 120. ♂ Zenaidura macroura marginella
wt 113.6 grams.
- ✓ 121. ♂ Black-headed Grosbeak 47.1 grams

Arnold-1933

122 ♂ Eutamias

195-85-29.15 wt 37.7

July 5, 1933

Toquima Range, 1 mi E Jefferson, 7600 ft.; Nye Co.; Nevada.

✓ 123 ^{Preserved} Passerella iliaca nestling 8.3 grams

✓ 124 ^{Preserved} P. iliaca " 12.4 "

✓ 125 ^{Preserved} P. iliaca " 10.6 "

✓ 126 ^{Preserved} P. iliaca nestling in snakes mouth

127 Water snake with young Fox Sparrow in mouth.

✓ 128 ♀ Passerella iliaca wt

✓ 129 ♂ P. iliaca wt 26.9 grams.

Toquima Range, 1 mi SW slope
Jefferson Peak, 8200 ft., Nye Co., Nev.
July 5, 1933.

130. ♀ Ochotona

168-14 -29-24 wt 140.9 grams.

♀ with mammary glands developed for living young.

Monitor Valley, 10½ mi E Toquima Mtn., 6900 ft., Nye Co., Nevada.

July 7, 1933

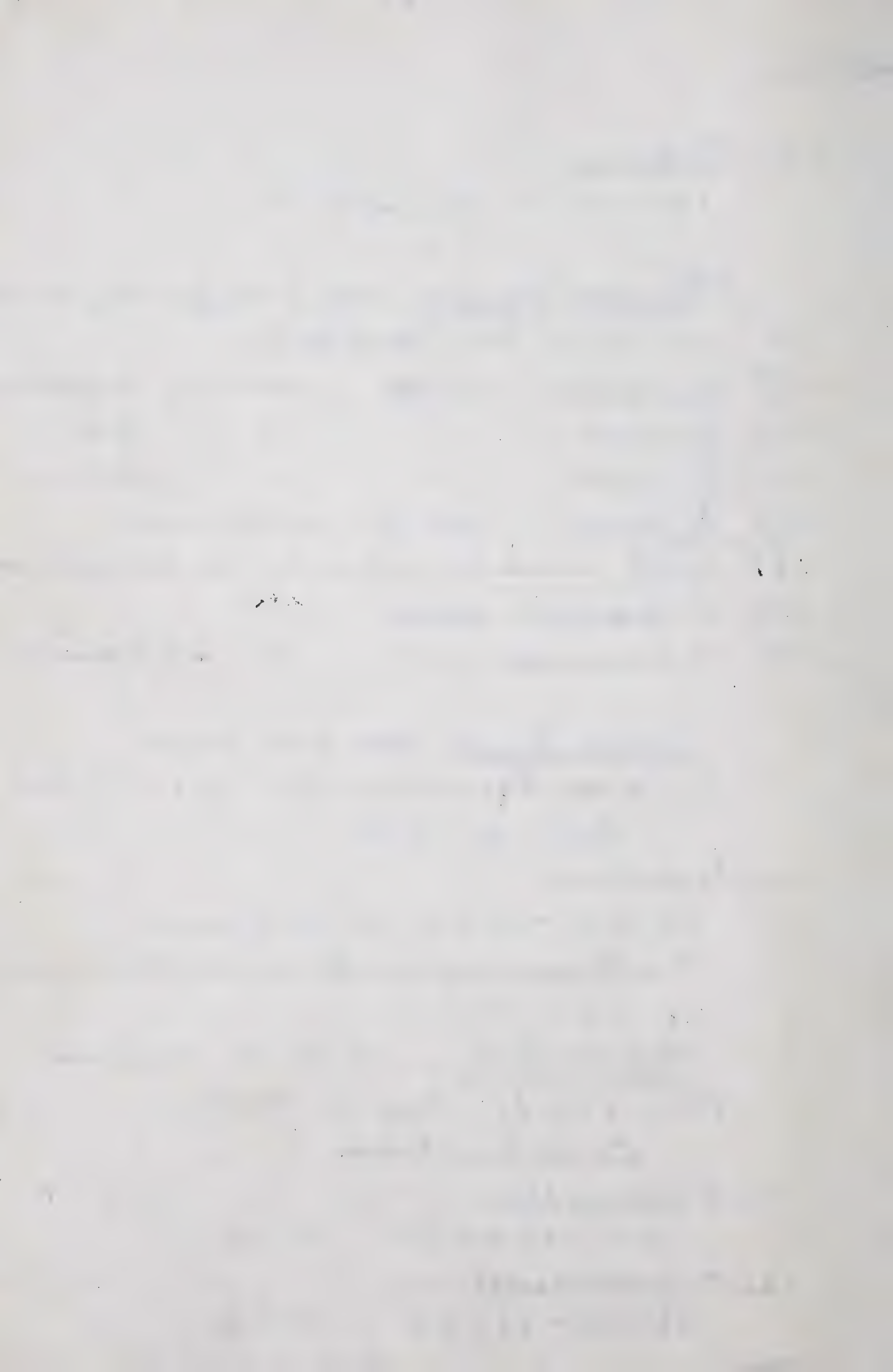
131. ♀ Microdipodops

152-76-25-9.5 13.2 g

132 ♂ Microdipodops

160-88-26-8.5 13.7 g

~~133~~



Arnold-1933

Monitor Valley, 9 mi. E Toquima Mtn.,
7000 ft., Nye Co., Nevada.

July 7, 1933

133. ♂ Dipodomys ordii col. by Paul T. Wilson
O-135-40-¹⁶~~14~~ 57.7 g
- 134 ♂ Dipodomys ordii col. by Paul T. Wilson
225-125-40-15 43.6 g.
- 135 ♂ Peromyscus m. sonoriensis col. by Paul T. Wilson
155-68-20-19 20.6 g
- 136 ♀ Peromyscus m. sonoriensis col. by Paul T. Wilson
150-64-20-19 23.2 g. ^{5 embryo}
2 - right = 15 mm
3 - left
- 137 ♀ Microdipodops col. by Paul T. Wilson
160-87-26-9
11.1 g.
- 138 ♀ Perognathus parvus
170-90-24-8.5 wt 18.4 g.
- ✓139 ♀ Killdeer wt 85.2 grams
- ✓140 juv Killdeer wt 18.4 grams.

July 8, 1933

Monitor Valley, 8 mi. E Toquima Mtn.,
7100 ft., Nye Co., Nevada.

141. ♂ Perognathus parvus col. by Ole Lilleland
160-~~85~~-23-9.5 wt 12.5
142. ♀ Peromyscus m. sonoriensis col. by Ole Lilleland
153-76-20-19 wt 23.4
143. ♀ Microtus mordax col. by Ole Lilleland
185-65-21-16 wt 53.4
5 embryo - 3 in right, 2 in left 6 mm

Arizold-1933

July 8, 1933

144. ♀ Peromyscus crinitus col. by Paul T. Wilson
175-91-20-19 wt 16.2 g.

Ralston Valley, 15½ mi. NE Tonopah,
5800 ft., Nye Co., Nevada

July 9, 1933.

145. ♂ Peromyscus m. sonoriensis
140-57-20-18

146. ♂ Dipodomys ordii
220-125-40-13

147. ♂ Dipodomys levipes col. by Wm. B. Davis
270-161-44-16

148. ♀ Dipodomys levipes col. by Wm. B. Davis
290-170-44-17

Hot Creek Range, 8 mi. W Tybo,
6700 ft., Nye Co., Nevada

July 10, 1933

- 149 ♀ Peromyscus truei
177-85-24-26 wt 28.4 g

150. ♂ Perognathus parrus
166-86-22-8 wt 14.6 g

- 151 ♀ Peromyscus crinitus
167-91-21-20 wt 15.4 g

- 152 ♀ Neotoma lepida lepida
231-100-29-28 wt 77.3 g

- alcohol
153 Uta lizard

Arnold 1933

Hot Creek Range, 8 mi. W Tybo, 6700
ft., Nye Co., Nevada.

July 9, 1933

✓ 154. ♂ Black-throated Gray Warbler 8.4 grams.

✓ 155. ♀ Wright Flycatcher col. by Wm Davis 11.9 grams,

July 10, 1933

156. ♂ Eutamias dorsalis

205-91-32-21 wt 52.7 g.

157 ♂ Eutamias quadrivittatus

211-95-33-16 wt 52.3 g.

✓ 158. ♂ Ash-throated Flycatcher wt 28.1 g.

✓ 159. ♀ Ash-throated Flycatcher col. by Wm Davis
 wt 28.0 g.

July 10, 1933

[Hot Creek Range, 7 mi W Tybo,
 7000 ft., Nye Co., Nev.]

160. ♂ Myotis evotis

63-41-10-21-12h. wt 5.9 g.

161 ♀ Myotis 1 embryo so much fully formed

96-42-8-14-8h. wt 7.9 g.

162 ♀ Myotis

60-38-8-14-8h. wt 4.6 g.

✓ skeleton

163 ♂ Spotted Towhee wt 32.9 g. col. by Ole Lilleland

alcoholic

164 ♂(?) Sceloporus

July 11, 1933.

alcoholic

165

Sceloporus

Arnold-1933

Monitor Range, Green monster Canyon,
7500 ft., Nye Co., Nevada.

July 11, 1933

166. ♀ Epitesicus fuscus leucy 29 mm
 122-48-13-18-15. 21.0 grams.

July 12, 1933

167. ♀ Peromyscus m. sonoriensis
 159-63-20-19 wt 23.4 g.

168. ♂ Peromyscus crinitus
 170-90-21-20 wt 16.3 g.

July 12 1933

- ✓ 169. ♂ Lazuli Bunting wt 16.1 g. Col. by Wm Davis
Fish Spring Valley, 2 mi. N Fish Lake,
Nye Co., Nevada.

July 11, 1933

- ✓ 170. ♂ Centrocercus urophasianus
 wt (without heart) 1777.3 grams

- ✓ 171. ♂ C. urophasianus 1899.5 g.

Monitor Range, Green monster
Canyon, 7500 ft., Nye Co., Nevada

July 12, 1933

- 172 ♀ Epitesicus fuscus
 115-52-11-17-9. 17.3 grams.

- ✓ 173. ♂ Violet-Green Swallow wt 15.2. Col. by Wm Davis.

July 13, 1933

174. ♂ Callospermophilus
 221-91-32-18 85.1 grams

- ✓ 175. Song Sparrow. wt 20.3 grams

Arnold - 1933

Monitor Range, Greenmonster Canyon
7500 ft., Nye Co., Nevada.

July 13, 1933

- ✓176. ♂ juv. Wn. Robin wt 68.8 g.
✓177. ♂ br. Hammond (?) Flycatcher wt 11.2 g

July 14, 1933.

7600 ft.

178. ♂ Thomomys 185-55-25-6 wt 87.9 g.

8600 ft.

179. ♀ Eutamias 180-61-29-14 wt 41.9 g.

7500 ft.

180. ♀ Eptesicus fuscus 1 embryo - 29 mm.
125-52-11-18.5-9.5 wt 22.2 gram

8200 ft July 15, 1933

181. ♂ Ochotona 155-9-28-23 wt 112.6 grams.

July 14, 1933

9000

- ✓182. ♀ Vireo, Wn Warbling 12.1 grams
✓183. ♀ Audubon Warbler 11.1 g.
✓184. ♂? Brewer Sparrow 10.1 grams
✓185. ♂ Chipping Sparrow 11.3 g.
~~✓186. Vireo, Wn Warbling wt 11.7 g.~~
✓186. ♀ Junco wt 18.8 gram

Fish Spring Valley, Fish Lake, 6500 ft.

Nye Co., Nevada July 16, 1933

- ✓187. ♂ Circus hudsonicus wt 298. gram.

- ✓188. A. sandwichensis wt 15.3 grams.
col. by E.R. Hall

Arnold-1933

Fish Spring Valley, Fish Lake, 6500 ft.,
Nye Co., Nevada:

July 16, 1933

✓ 189. ♀ Clangula

col. by E.R. Hall

wt 750.9

July 18, 1933

Hot Creek Valley, 2-10 mi. N Hot Creek,
5900 ft., Nye Co., Nevada:

190. Onychomys

Fish Spring Valley, Fish Lake, 6500 ft.,
Nye Co., Nevada:

July 16, 1933

alcoholic

✓ 191. ⁷⁴ Amphispiza nevadensis wt 11.1 gms

Hot Creek Valley, 1/4 mi. W Hot Creek, 5900
ft., Nye Co.,

July 19, 1933

192. ♂ Peromyscus sonoriensis

162-73-22-18

wt 20.7 gms

Hot Creek Valley, 2-10 mi. N Hot Creek
5900 ft., Nye Co., Nevada.

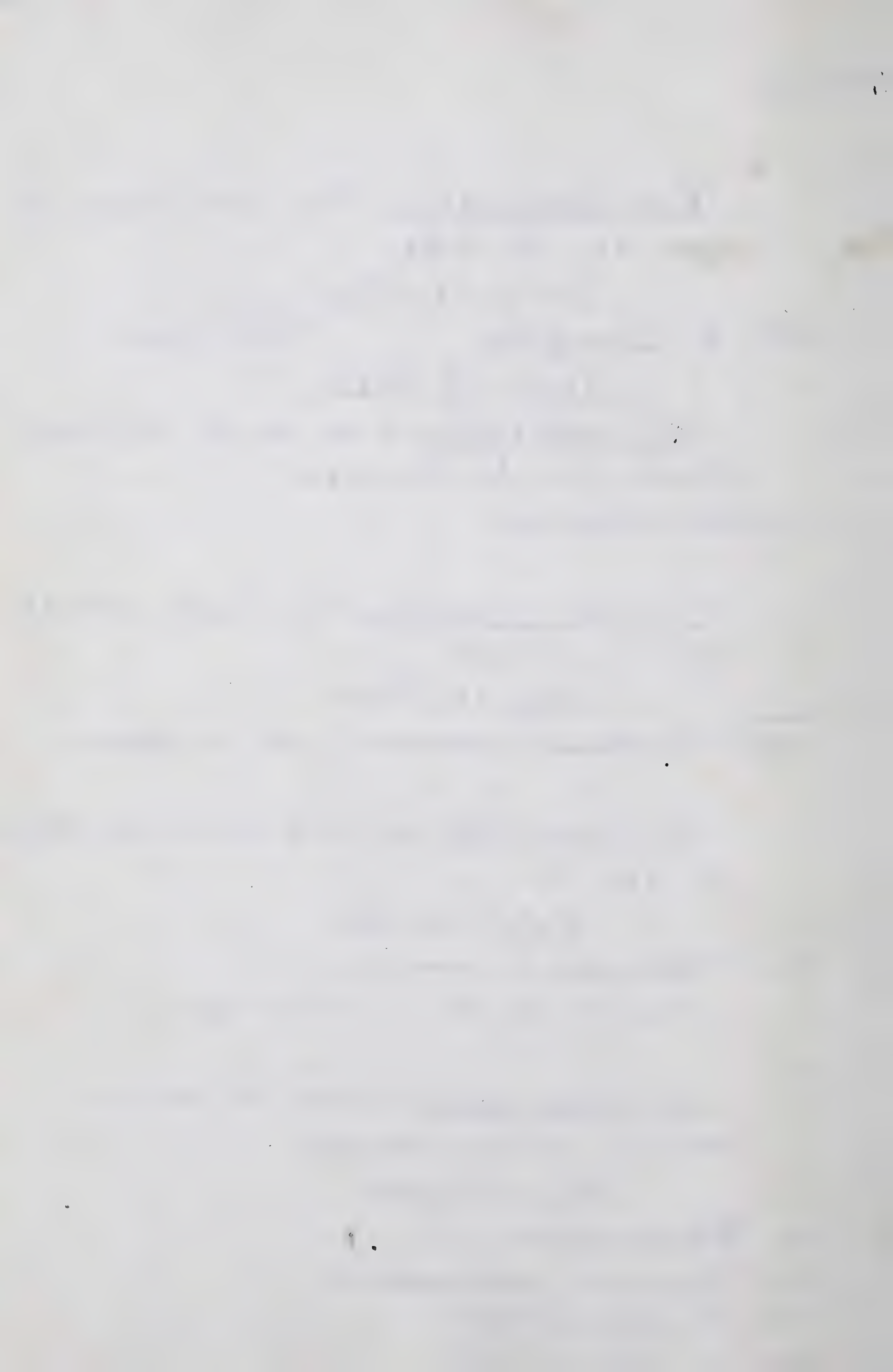
July 18, 1933

193. Platyrrhinus

194. Phrynosoma platyrhinos

195. P. platyrhinos

196. P. platyrhinos.



Arnold-1933

Hot Creek Valley, 2-10 mi. N Hot Creek,
5900 ft., Nye Co., Nevada

July 18, 1933.

197. Phrynosoma platyrhinos

198. P. platyrhinos

199. P. platyrhinos.

Hot Creek Valley, 4 mi. W Hot Creek,
5900 ft., Nye Co., Nevada. July 19, 1933

200. Bufo

Ralston Valley, 34 mi. E + 1 mi. N
Tonopah, 5650 ft., Nye Co., Nevada.

July 19, 1933

Col. by W.C. Russell

201. ♂ Dipodomys deserti 309-185-52-18

202. ♂ " ordii columbianus 235-130-39-14.

203. ♀ " levipes 272-161-43--

204. ♀ " " 266-153-43-15

205. ♀ " " 244-135-41-15

206. ♂ Onychomys 120-39-20-20

~~207. " " 140-20-19.~~

Hot Creek Valley, 3½ mi. E
Hot Creek, 5650 ft., Nye Co., Nevada.

July 20, 1933.

207. ♀ Microdipodops 152-84-24.5-10.5 ^{12.3g}

208. ♂ Perognathus nevadensis 123-69-19-7.5 ^{5.8 gram}

209. ♂ " " 132-72-19-7 ^{2.6 gram}

Arnold-1933

Hot Creek Valley, 3½ mi. ~~E~~ Hot Creek,
5650 ft., Nye Co., Nevada

July 20, 1933

210. ♂ Dipodomys ordii columbianus 242-146-40-15 wt 47.2
 211. ♂ D. levipes 271-158-43-15 wt 71.8
 212. ♂ D. " 277-164-43-15 ~~wt 69.4~~
 213. ♂ D. " 270-154-42-15 wt 71.7 grams.

Hot Creek Valley, Hot Creek, 5900 ft.,
Nye Co., Nevada.

July 19, 1933

- ✓ 214. ♂ Blackbird, Brewer - wt. 71.9 grams

Hot Creek Range, 4 mi. N Hot
Creek, 6400 ft., Nye Co., Nevada;

July 21, 1933

215. ♀ Neotoma l. lepida 296-131-31-29 wt 149.7 grams
 216. ♀ Neotoma l. lepida 298-130-31-30 wt 130.3
 217. ♀ Peromyscus m. sonoriensis 164-78-19-18 wt 25.4
 218. ♂ " crinitus 168-91-19-20 wt 17.9
 219. ♂ " m. sonoriensis 156-71-20-18 wt 24.9
 220. ♂ " " 161-70-20-18 wt 18.3
 221. ♀ " " 157-68-21-18 wt 21.2

alcoholic
 222 Sceloporus
 alcoholic
 223 Uta

Arnold-1933

N End Reveille Valley, Old Mill,
6200 ft; Nye Co, Nevada.

July 22, 1933

224.	♂	<u>Microdipodops</u>	157-81-24.2-10	12.4	gram
225.	♂	"	152-82-23-9	10.7	"
226.	♀	"	150-77-24-11	14.6	"
227.	♂	"	159-78-24.8-10.5	12.1	"
228.	♀	"	153-81-24-9.9	11.7	"
229.	♂	"	155-82-24.8-11	wt 12.7	"
230.	♀	<u>Peromyscus m. sonoriensis</u>	146-65-20-18	-	wt 14.3 "
231.	♂	<u>Dipodomys leucipes</u>	274-161-42-15	-	wt 69.2 "

Railroad Valley, 3 mi. S Nyala,
5600 ft; Nye Co, Nevada.

July 23, 1933.

232.	♀	<u>Dipodomys leucipes</u>	271-159-42-14	-	wt 61.8
233.	♀	<u>Peromyscus m. sonoriensis</u>	165-66-49-18	-	wt 20.3
234.	♂	<u>Perognathus nevadensis</u>	129-69- ¹⁹ 20 -8	-	wt 6.5
^{alc} 235.		<u>Uta</u>			
^{alc} 236.		<u>Phrynosoma platyrhinos</u>			
^{alc} 237.		"			
^{alc} 238.		<u>Sceloporus</u>	col. by E. R. Hall.		

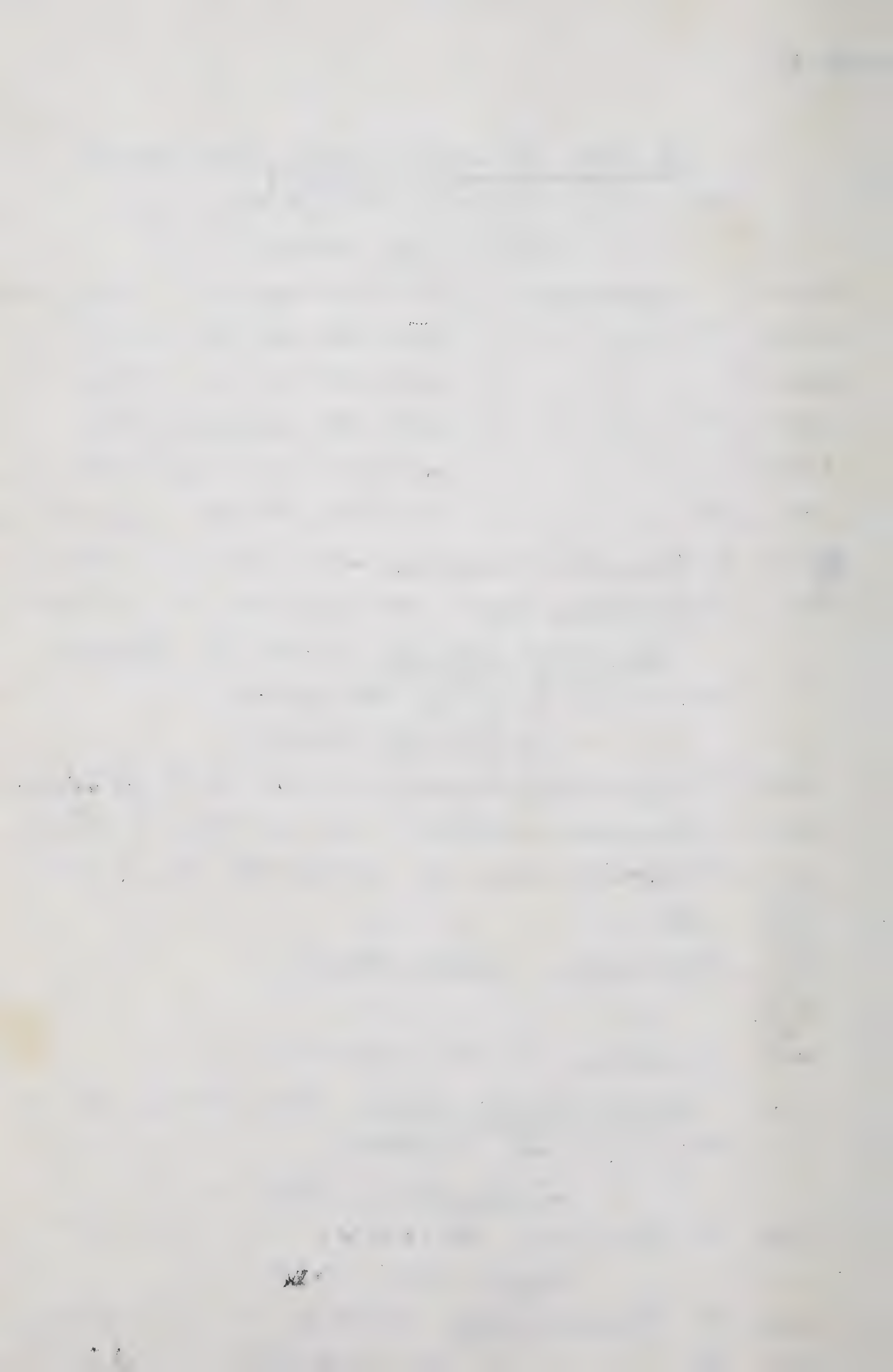
Quinn Canyon Mtns., Big Creek, 5800
ft; Nye Co, Nevada.

July 23, 1933

239	♀	<u>Myotis</u>	90-45-8-16-11 th	wt 4.5	gram
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July 24, 1933

240.	♂	<u>Perognathus formosus</u>	193-107-25-11.5	wt 22.3	gram
241.	♂	"	201-116-25-11.5	wt 19.9	"



Arnold-1933

(cont)

July 24, 1933

242. ♂ Perognathus formosus 184-109-25-11 wt 7.1 grams
 243. ♀ " " 186-110-24.5-12 wt 19.2 "
 244. ♀ Peromyscus crinitus 180-97-19-21 wt 17.7 "
 245. ♂ " " 174-90-19-20 wt 12.8 "
 246. ♀ " " 160-86-19.5-20 wt 12.9 "
 247. ♂ " " 166-86-20-20 wt 15.7 "
 248. ♀ " " 167-87-20-20 wt 11.9 "

Railroad Valley, 9½ mi. E New Reveille,
 5100 ft., Nye Co., Nevada

July 25, 1933

249. ♀ Dipodomys levipes 266-163-41-15 wt 51.8 grams
 250. ♀ Perognathus nevadensis 139-76-19-8 wt 7.3 "
 251. ♀ Dipodomys ^{col. by O. Lilleland} levipes 268-156-42-15 wt 63.1 "
 252. ♂ Peromyscus ^{col. by O. Lilleland} m. sonoriensis 131-59-19-18. wt 10.9 "

Railroad Valley, 2 mi. NE Nyala, 5100 ft.,
 Nye Co., Nevada.

July 25, 1933

col. by W. E. Russell

253. ♀ Dipodomys m. levipes 278-166-41-15
 254. ♂ " " 268-161-42-16 "
 255. ♂ " " 289-171-44-16 "

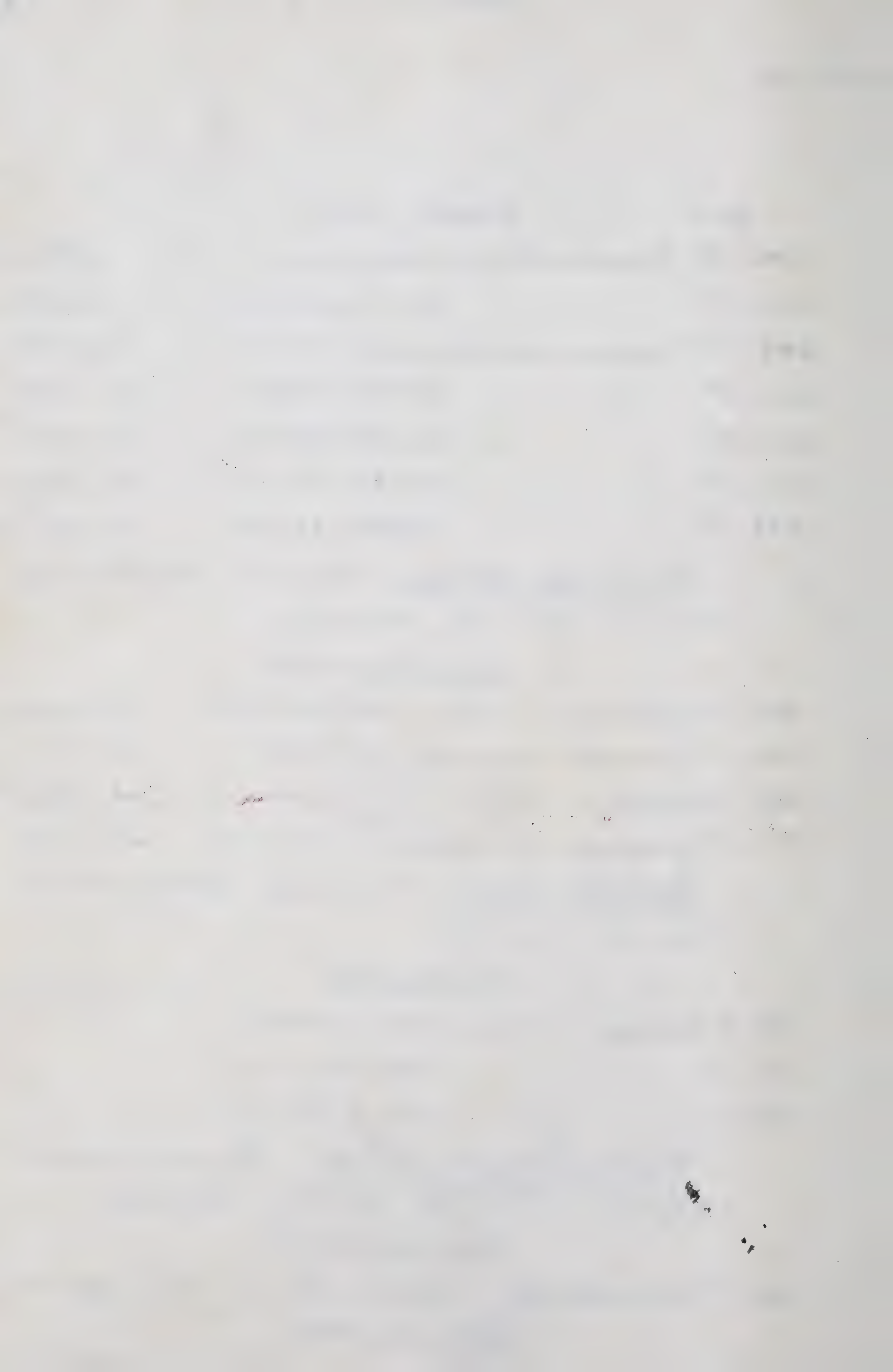
Quinn Canyon Mtns., Burned Corral
 Canyon, 6700 ft., Nye Co., Nevada.

July 25, 1933

- ✓ 256. ♀ Carpodacus cassinii (?) wt 25.5 grams

July 26, 1933

257. ♀ Microtus mordax 156-49-20-14 wt 30.6 grams



Arnold-1933

Quinn Canyon July 26 (con.)

258	♂	<u>Peromyscus truei</u>	183-92-23-27.5	wt 20.2
259.	♀	" <u>m sonoriensis</u>	152-62-20-19	wt 24.9
260.	♂	" " "	153-65-19-18	wt 15.1
261.	♀	" " "	154-69-20-18	wt 20.7
262.	♂	" " "	152-64-20-18.5	wt 17.6
263.	♀	" " "	161-72-21-18.	wt 21.5

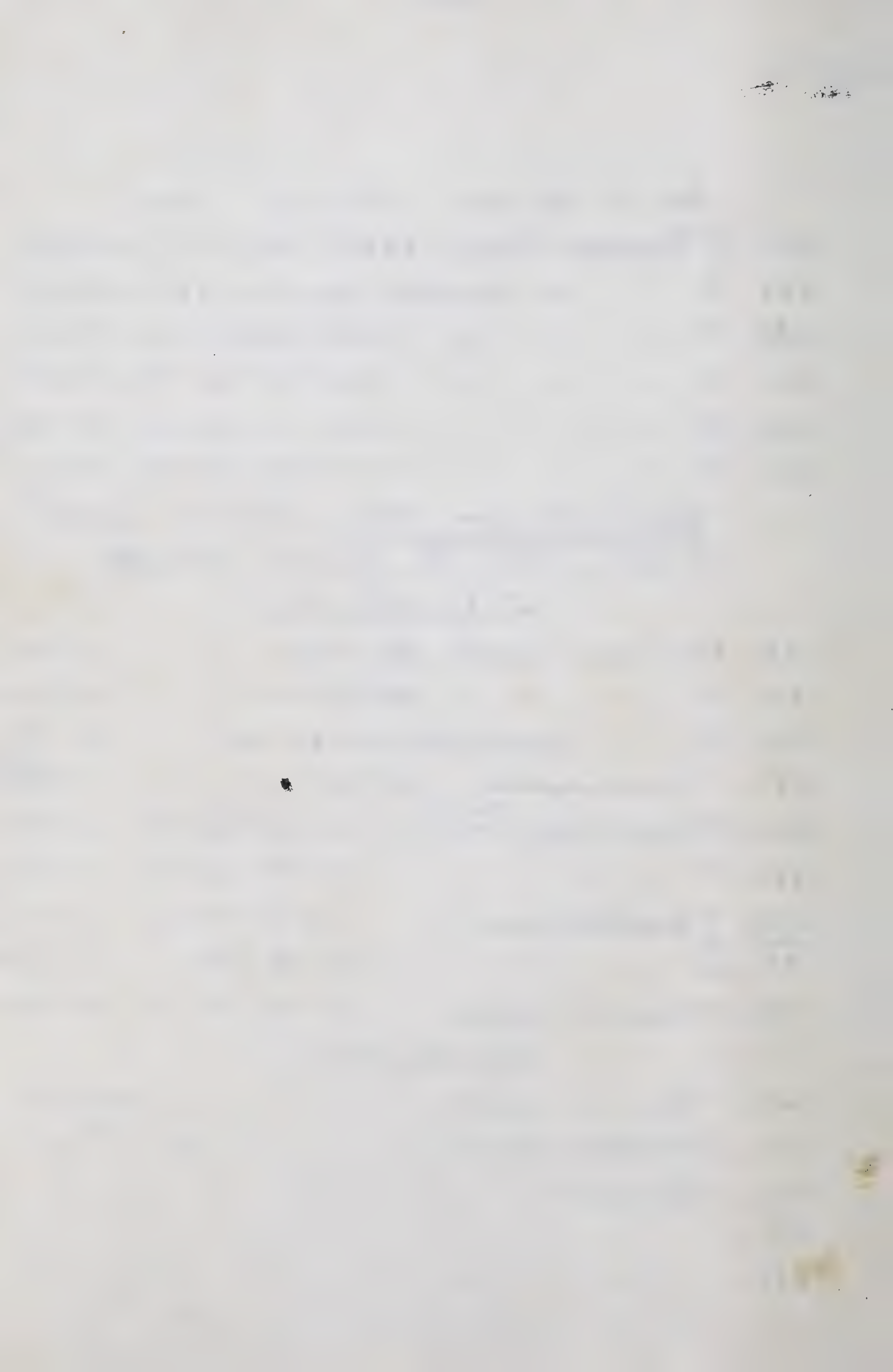
Quinn Canyon Mtns., Burned Corral
Canyon, 6700 ft., Nye Co., Nevada;July 27, 1933

264.	♂	<u>Eutamias dorsalis</u>	199-94-32-21	wt 46.7
265	♀	" "	181-63-32-21	wt 53.6
266.	♀	" <u>quadrivittatus</u>	206-83-31-19	wt 60.6
267	♂	<u>Callospermophilus</u>	249-96-37-19	wt 109.9
268.	♀	<u>Peromyscus truei</u> ^{3awbrgs} x 25 mm	210-105-23-29 ^{utab. minor}	wt 39.2
269.	♂	" "	182-94-23-95	wt. 23.0
270.	♂	<u>Perognathus parvus</u>	168-91-23-10	wt. 16.9
271.	♀ juv.	" "	141-80-22-9	wt. 10.4
272.	♂	<u>Peromyscus m sonoriensis</u>	149-65-20-20	wt. 19.5

July 26, 1933

✓ 273.	♂	<u>Pipilo m. curtatus</u>	wt 47.7 grams
✓ 274.	♂	<u>Psaltiriparus m. plumbeus</u>	wt. 5.9 "
275.		<u>Sceloporus</u>	
276.		"	
277.		"	





Arnold-1933

Quinn Canyon Mtns; Burned Corral Canyon, 6800 ft; Nye Co, Nevada:
July 28, 1933.

278. ♀ Eutamias dorsalis 175 (57) - 31 - 21 wt. 59.0
 279. ♀ " " 206 - 91 - 32 - 21 wt. 46.6
 ✓ 280. ♀ Pimanga ludoviciana wt. 29.9
 ✓ 281. ♂ Pipilo m. curtatus wt. 37.4
 ✓ 282. ♂ Parus gambeli wt. 12.3

6700 ft., July 28, 1933

- ✓ 283. ♂ Carpodacus cassinii wt. 25.6
 ✓ 284. ♀ Naefruga columbiana wt. 127.4

Quinn Canyon Mtns., Burned Corral Canyon, 6800 ft; Nye Co, Nevada:
July 29, 1933.

285. ♂ Peromyscus truei 182-88-23-28 wt. 21.6
 286. ♂ Microtus mordax 152-55-21-14 wt. 25.8
 Reithrodontomys megalotis
 287. ♀ Peromyscus eremicus 130-69-17-16 wt. 9.5
 288. ♂ " m. sonoriensis 153-68-19-18 wt. 18.9
 289. ♀ " " 160-63-20-20 wt. 24.9
 290. ♂ " " 157-72-21-18 wt. 16.0
 291. ♀ " " 164-68-20-20 wt. 23.1
 292. ♂ " " 147-68-20-19 wt. 19.6
 293. ♀ " " 169-71-20-19 wt. 20.2
 294. ♀ " " 170-69-20-20 wt. 23.9
 ✓ 295. ♂ Pipilo m. curtatus wt. 38.8 gm
 ✓ 296. ♂ Dendroica nigrescens wt. 7.9 gm

The first part of the report discusses the general situation of the country and the progress of the work done during the year.

The second part of the report deals with the various projects which have been carried out during the year. These include the construction of a new road, the improvement of the water supply, and the establishment of a new school.

The third part of the report contains a list of the names of the persons who have been employed during the year, and a statement of the amount of money which has been spent on each of the various projects.

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Arnold-1933

Quinn Canyon Mtns., 7 mi. E Nyala,
2000 ft., Nye Co., Nevada.

July 30, 1933

297. ♀ Peromyscus crinitus 177-91-20-20 wt. 14.6
 298. ♂ " " 155-82-19-20 wt. 11.5
 299. ♀ Eutamias quadrivittatus 214-95-32-18 wt. 56.8
 300. ♂ " " 210-94-31-18 wt. 57.0

Quinn Canyon Mtns., Burned Corral Canyon,
6800 ft., Nye Co., Nev.

July 28, 1933

301. ♂ Pipilo m. cartatus ^{Head of} at 37.8 gms.
Quinn Canyon Mtns., Burned Corral Canyon,
7800 ft., Nye Co., Nevada:

July 29, 1933.

302. ♀ Sitta c. nelsoni. wt. 16.9 gms.

Quinn Canyon Mtns., Burned Corral
Canyon, 6700 ft., Nye Co., Nevada.

July 30, 1933

303. lot. of 8 Scapiopus juv.

304. ♀ Myotis ? sp. 81-41-7-16-102 wt. 5.1

Quinn Canyon Mtns., 7 mi. E Nyala,
~~2000~~ 6700 ft., Nye Co., Nevada.

July 31, 1933

305. ♂ Eutamias impletus 175-80-29-15 wt. 28.4
 306. ♀ " " 181-81-29-16 wt. 39.6
 307. ♀ " dorsalis 215-95-32-21 wt. 55.3

Arnold-1933

Quinn Canyon Mtns., 7 mi. E Nyala, 6700 ft.,
Nye Co., Nevada.

July 31, 1933.

- | | | |
|-------|--------------------------------------|----------|
| ✓308. | ♀ <u>Polioptila</u> | wt. 5.1 |
| ✓309. | ♂ <u>Salpinctes</u> <u>obsoletus</u> | wt. 15.7 |
| ✓310. | ♂ <u>Spizella</u> <u>breweri</u> | wt. 11.6 |

Irroll - 1933

General NotesItinerary

June 29, 1933

Day before yesterday left Berkeley at 9:15 A.M. in company with Wm B. Davis, Stephen D. Durant, Francis C. Gale Jr, Frank W. Gorham, E. Raymond Hall, Olle Lilleland, Ward C. Russell, Paul T. Wilson. Traveled in 3 motor vehicles, 2 trucks and 1 car, via Carquinez bridge to Davis, Sacramento, Roseville, Auburn, Truckee, and Reno.

Made overnight camp along main highway 8 miles east of Reno. Left this camp 5:20 A.M., June 28, and drove via ^{Fallon} East Gate, Austin, Millett, Round mtn., to a point in Jefferson canyon $\frac{1}{2}$ mile East of Jefferson 7600 ft. elevation in the Toiyama Range, Nye Co., Nevada. Pitched camp at 6:30 P.M. beside stream. While enroute June 27 collected a Red-breasted Sapsucker 38 miles east of Colfax elev. ca 6500.
Notes June 28 (Copied from car notebook)
 Saw 2 cormorants in Truckee R.

Arnold - 1933

June 29, 1933 19 miles east of Reno. 5:40 A.M.
(cont)

Saw B. b. magpie 26 m. E. Reno.

Saw gull in road (Calif. or Ring billed)

39 miles from Reno on Wadsworth Rd.

In a large marsh 8 miles north west of Fallon, the following birds were observed.

35 + Avocets (probably 1-200)

10 Pied-billed grebes.

4 Am. eared grebes.

30 + Yellow-headed Blackbirds.

4 Coots

2 Canvas-backed Ducks

5 Killdeer.

3-10 unknown dark duck. like birds

3 ? sandpipers ?

5 miles east Fallon saw

1 male valley quail. 5/29/33

10 miles east Fallon saw

a sage thrasher 100 ft from road in greasewood.

12 miles east Fallon 5 glossy

Ibis near road.

June 29 - 5 P.M. set 55 government mice traps and 4 wooden rat traps in dry wash (middle fork of Grass creek) 1 1/2 miles East of

Arnold-1933

June 29, 1933
(con)

Jefferson, 7700 ft. elevation, Nye Co., Nevada. Previously the same afternoon shot 1 Callispermophilus, 1 Eutamias, and 1 Sylvilagus in same region. [See Catalogue].

June 30, 1933.

From total of 59 traps took only 1 Perognathus parvus and 1 Peromyscus ^{mn.} ~~g.~~ sonoriensis. one trap was missing and only 2 others touched. Other members of the party working near water had better results. Put up these skins, some others, and 1 chipping sparrow taken by Fr. C. Gale.

Hunted in same canyon from 3:30 - 5 pm + shot one queer Eutamias, species questionable, and set 54 traps. These were set as follows: 20 in rocks + brush at foot of rock slide, 4 at Eutamias' holes, 15 in dry wash, and 10 in "sagebrush".

The first 20 look the most likely.

After supper shot a bat in a clearing near the stream

Arnold-1933

July 1, 1933

Visited traps at 6.4m and found 2 Perognathus parvus and 2 Microtus mordax. The twenty "best sets" yielded only one Perognathus parvus.

Put up skins during the morning, hunted for a while after dinner shooting a Lazuli Bunting, Audubon Warbler, Russet-backed (?) Thrush and ^{took} a young Thrush in nest.

Blew out skulls of yesterday's catch as rest of party has gone up hill hunting for the day.

Party arrived with 1 deer, 2 blue grouse and several other specimens. They left a deer to be ^{carried down} ~~recovered~~ tomorrow. As I will go on this party Dr E. R. Hall will handle the bird skins:

July 2, 1933

Went with Russell and Lillard to get Russell's deer. It was on the north slope of Toiyune Mtn, Toiyune Range, 9500 ft., Nye Co., Nevada. In the same vicinity and slightly lower I collected

Arnold-1933

July 3, 1933
(con)

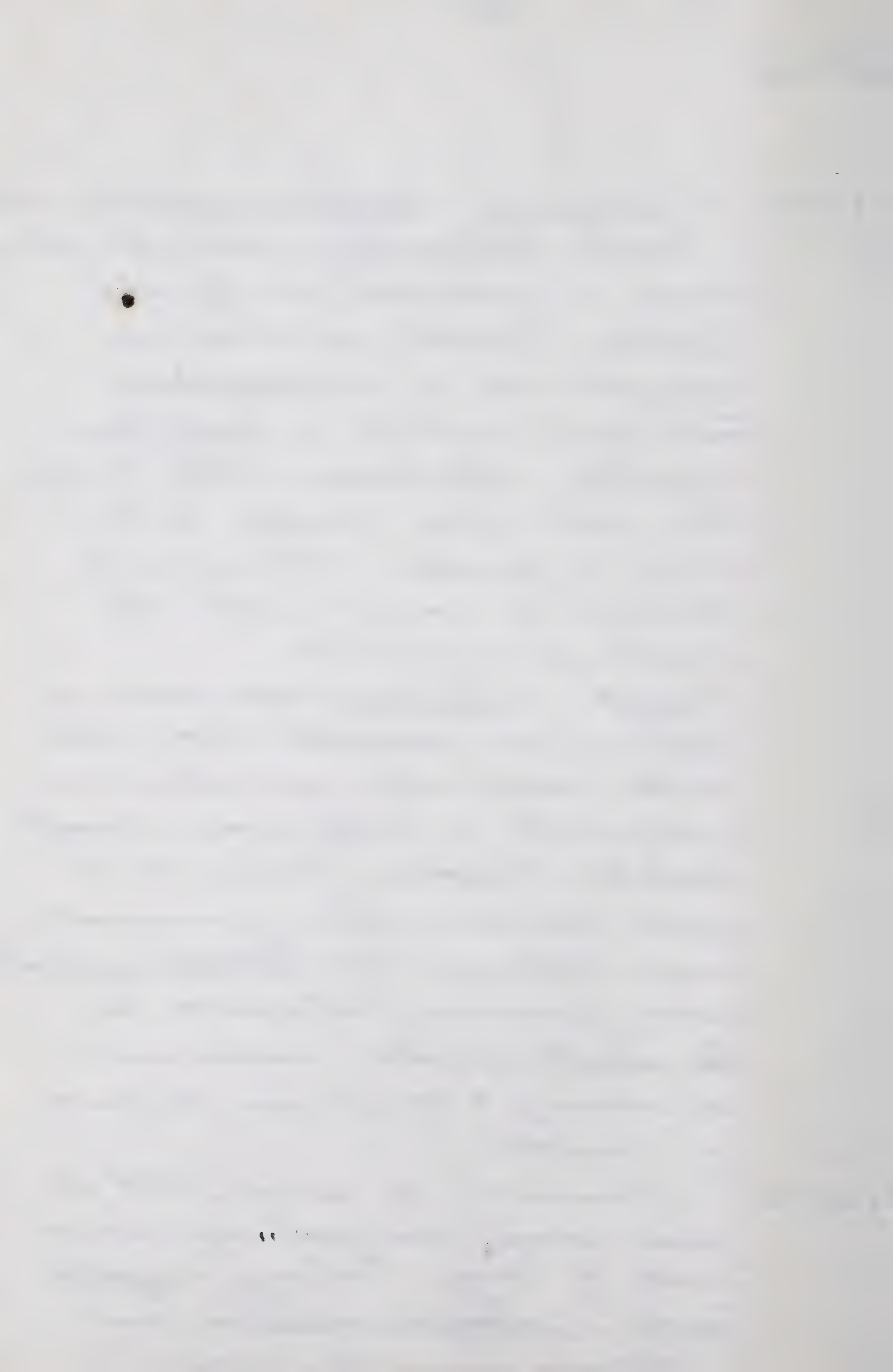
2 Eutamias, 1 Callospermophilus, and 1 Clark's Nutcracker. Not far from camp I collected a Spotted Towhee. Russell collected a Marmot and 2 Woodpeckers.

Lillard collected 2 Audubon Warblers, 1 chickadee, 1 Rock Wren. We saw no conies and only 2 grouse. The party arrived in camp with the meat at 4:15 P. M.

Comments. Rock Wrens were seen as high as we ascended (9500) while on this same ridge we found a nest with 2 half-grown Russet-backed (?) Thrashers. Clark's Crows were common while juncos were rare. Eutamias and Callospermophilus were common but wild. A Red-shafted Flicker was seen at nearly 9400 ft in a grove of aspen.

July 3, 1933

Remained in camp [still at first camp] and put up skins most of day. Put up a spotted Towhee, 2 Callospermophilus, and 2 Eutamias as well as 1 cony.



Arnold-1933

July 4, 1933 Celebrated the day by remaining in bed till 6:50 A.M.. After breakfast hunted up Grassy Creek Canyon as far as the abandoned mine shaft. Collected 1 Black-headed Grosbeak ♂, 1 Mourning Dove, and 1 Eutamias m. pictus. The mine shaft was examined for bats but no sign was found. Woodrat sign was abundant. The rock slide on the west-facing slope was carefully watched and hunted for conies but none ~~were~~^{was} found. Returned to camp at 10:40 A.M.. Left camp again and hunted down stream near the road. Shot one adult female Callospermophilus on rock slide. Crossed stream and crossed plateau near stream, shot 1 Callospermophilus, and 2 Eutamias. Spent afternoon and evening putting up skins and writing notes.

July 5, 1933 Left camp at 5 A.M. traveling up first north branch of Jefferson Creek. The party composed of Hall,

Arnold-1933

July 5, 1933
(cont)

Wilson, Durant, and myself was primarily interested in conies. The party went up to 8700 feet along this creek and then separated to hunt conies on the rock slides. The party secured 12 specimens and returned to camp by 11:30. During the morning I saw 4-5 conies but none were seen after 9:15 although ^{S.} ~~the~~ Durant collected one at about 10:45 a.m. one specimen was seen with hay in its mouth. One of my specimens was an adult female suckling young. During the morning several species of birds were seen. A Tolmie Warbler was seen in willow thickets near the stream, a Russet-backed Thrush was heard, and many violet-green swallows were seen circling around the cliffs, probably with nests. The meadows, small, along the stream were covered with Castilleja, Iris, and grass. Pinon pine and Juniper

Arnold-1933

July 5, 1933
con

were on the hillsides while willow, aspen, and alder lined the stream banks. Rose was the bush of the stream while Artemisia was the "sage bush" of the side hill and flat. The conies were found on rock slides with occasional Artemisia clumps.

In the afternoon two fox sparrows, nest and young were taken near camp. See Species Accounts. Skins were prepared of the adults while alcoholic specimens were made of the young and attacking water snake.

July 6, 1933

Broke camp at location 1 mile east of Jefferson, Nye Co., Nevada at 9 AM today. The party drove to Tonopah by way of Round Mtn. and San Antonio thru Big Smoky valley. Time was taken at Tonopah to receive and send mail, eat lunch, check ^{examine + repair} shoes and check the auto tires. From Tonopah the party proceeded

Arnold-1933

July 6,
(con.)

north east to Belmont and then north to a point 9 miles east of Mt. Toquira and made camp at an abandoned stone house at 7000 ft. elevation. During the ride from Jefferson to Tonapah but little of interest was noted except jackrabbits and a few common birds. Sand dunes and geological formations were also of interest. During the ride from Tonapah to ^{this} present camp several items were noted. Cliff swallows were noted nesting at Belmont. Brewer blackbirds were seen at Belmont and around this camp. Three Turkey Vultures were seen north east of Belmont but my attempt at collection failed. Pigmy, Cotton-tail and jack-rabbits were seen but only the jack in numbers. Around this camp pigmy rabbits are common.

While placing 60 mice traps on the flat $1\frac{1}{2}$ miles from this camp pigmy rabbits were seen commonly. One marsh

Arnold-1933

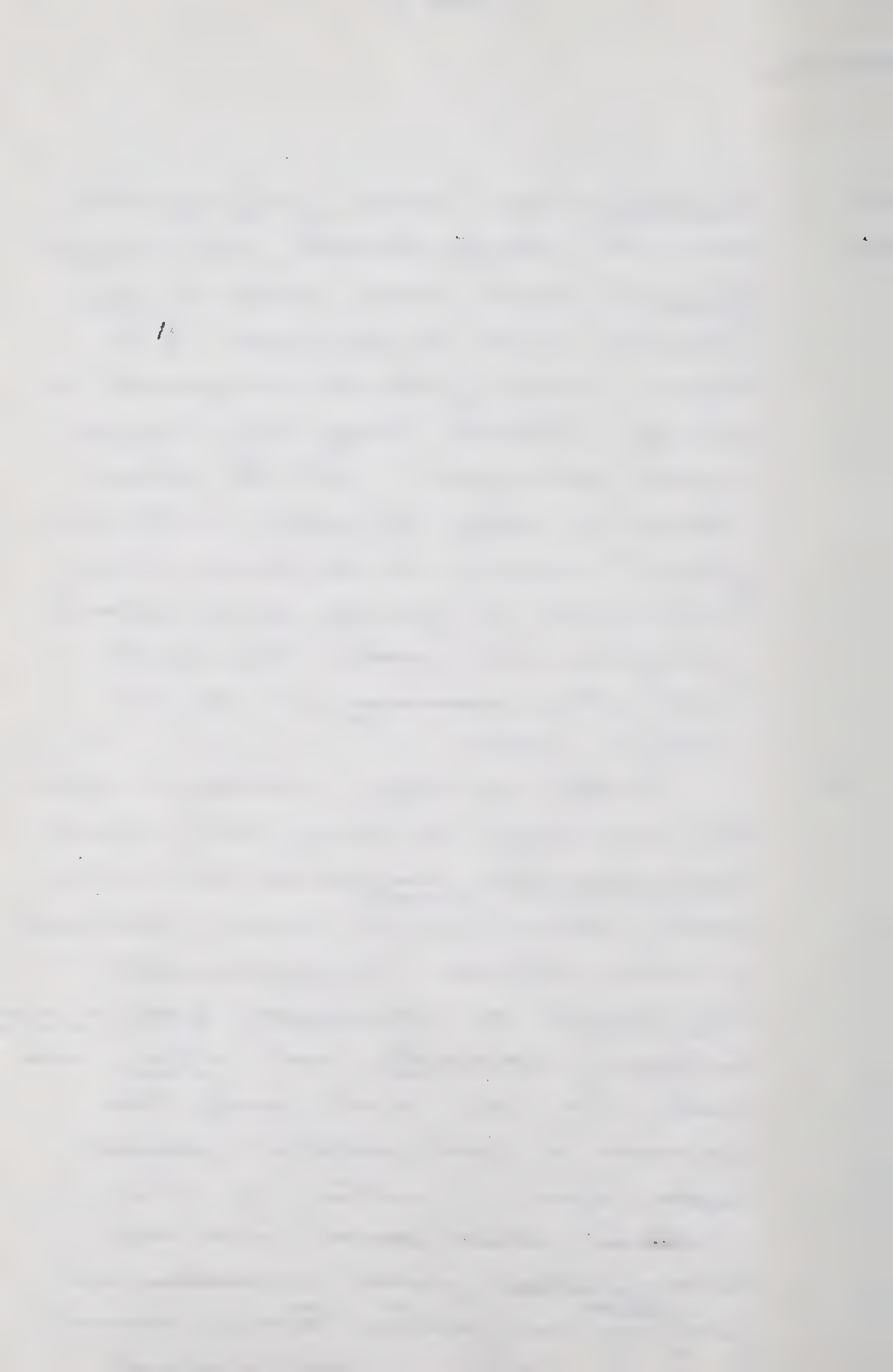
July 6
(con)

hawk was seen flying low over the sage brush, one sage thrasher was seen, several Say Phoebe's, and 2 ravens. The traps were placed around a sandy knoll. Sage hen sign was common. At the stone house a Say Phoebe nest was found inside on a cross brace. There were 4 young, fully feathered young in the nest. Chipmunks were seen running under the broken stone.

July 7.

Picked up traps between 4-5 Am this morning; 2 living and 2 dead microdipodops comprised the entire catch. Others ^{of the party} were more fortunate in other regions. Kangaroo rats, Peromyscus m. sonoriensis, Reithrodontomys, Eutamias, Microtus, and others ^{of mine} were taken by the total party. The morning & first part of the afternoon were spent putting up skins.

Collected adult female and one downy killdeer from meadow and put ^{them} up as skins. Found several meadowlarks and one feathered



Arnold-1933

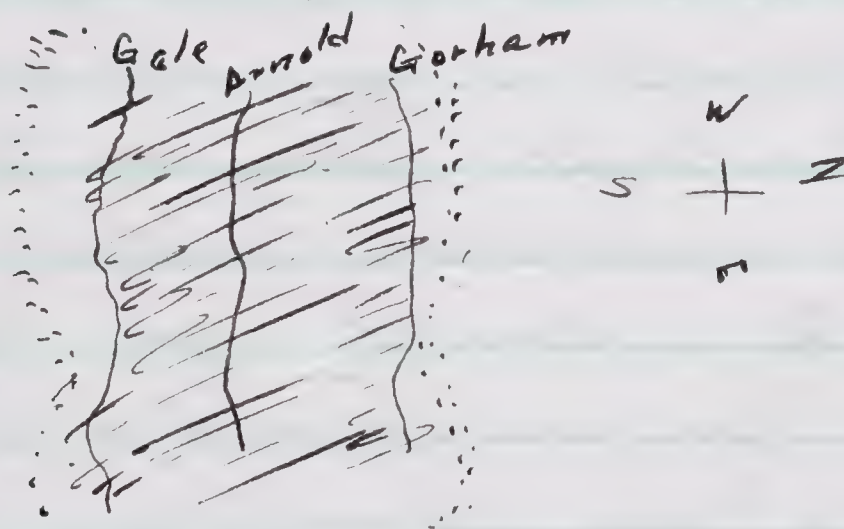
July 7, 1933
(m)

juvenile meadowlark.

Late in afternoon set 48 traps for Microtus in the wet meadow near camp.

July 8, 1933

Picked up traps at 4:45 and "drew a blank". Not a thing out of 48 traps! Found about 100 traps set by Gale and Gorham 2 Microtus and 3 or 4 mice were taken from this same meadow



During the morning put up 3 skins for O. L. Lilliant.

While in meadow saw 2 young sagehens, 2 young meadowlarks, and in the distance a Prainal Falcon

At 2:45 P.M. broke camp and proceeded down thru Belmont to Tonopah. Looked over some sand dunes on

Arnold-1933

July 8, 1933
(con)

the way and after supper at Tonopah, returned and made camp among the dunes beside the road. As it was after dark, and flashlights scarce Stephen ^{who had no flashlight} Durant, and I set 40 traps together in one trapline.

July 9,

From the 40 traps took
1 Peromyscus m. sonoriensis,
1 Dipodomys ordii, 1 D. levipes,
2 Perognathus nevadensis, and
1 Microdipodops. The exact location is = Ralston Valley, 15 1/2 miles Northeast of Tonopah, elevation 5800 ft., Nye Co., Nevada. The specimens were drawn, wrapped in oil paper and net sacks, and packed. We drove by way of Clark's Station to the next location. This location is = Hot Creek Range, 8 miles ~~east~~ ^{west} of Tybo, 6700 ft elevation, Nye Co., Nevada. The afternoon was spent skinning the catch. Late in the afternoon I set out 15 rat traps and 20 mice traps. During my walks I saw one

Arizold-1933

July 9,
(con)

Shrike (Lanius) and 2 Black + white Warblers, collecting one of the latter.

During the evening Ward Russell collected a number of bats.

July 10,

Went over the line of traps set out and took 1 Peromyscus crinitus, 1 P. truei, 1 Perognathus parvus and 1 Neotoma lepida lepida from the mice traps. The rat traps, set for chipmunks were untouched but at 11:30 A. M. took 1 Eutamias dorsalis and 1 E. quadrivittatus from these. The dorsalis was taken under a dead Piñon pine while the E. quadrivittatus was taken on the floor of the canyon near a live Piñon. [Other collectors found more E. dorsalis on the rocky slopes too.] While picking up traps many lizards [Uta + Sclerophorus] were seen and 1 collected [Uta].

During the day there 6 mammals, 1 Black-throated Gray Warbler [above referred to as "Black + white"], 1 Wright Flycatcher, and 2 Ash-throated Flycatchers were made up.

Arnold-1933

July 10,
(con)

These Ash-throated Flycatchers, a male & female, were taken near camp, probably a nesting pair.

During the evening from 7:30 to about 9, 5 members of the party, W. Russell, F. Gab, F. Gorham, S. Durant, and J. Arnold walked up to a spot $\frac{3}{4}$ miles from camp known locally as Italian ^{Springs} ~~valley~~ to collect bats. At this point, ^{there} are 2 water tanks and a long watering trough set in a clearing. Many bats were seen flying over the tanks to get water and a total of 25 were taken. ^{of the bats which were} Many shot were not found. All were Myotis and a few Myotis evotis were among the group.

July 11, 1933

The first portion of the morning was spent searching ^{around the tanks dead} for bats and a few were found. During the morning after this I put up 3 Myotis, skeletonized, 1 Spotted Towhee and put up 1 lizard. While hunting dead bats 3

Arnold-1933

July 11, 1933

(Con)

2 Uta + 1 Sceloporus

lizards, were taken alive by Ft. Gorham & myself. After dinner everything was packed and then^{we} started up Fish Creek Valley to find a new collecting location. Two miles beyond Fish Lake two small Saghen were secured. Dr. Hall also took one.

Late in the afternoon camp was pitched in the Monitor Range, Greenmonitor canyon, 7500 ft., Nye Co., Nevada. The camp was about 4 miles above the ranch between 2 small hay patches (alfalfa). The Indian^{tranche} proved a fine host.

My trap line consisted of 40 traps in and among the rocks near camp. In a cave or deep crack much sign was found of Woodrats, mice and bats. The "sign"^(droppings) was 6-8 inches which on the floor in places, while the hard, dark ~~to~~ brown, molasses appearing urine piles of the Neotoma

Arrn old. 1932

July 11
(con.)

were seen over the walls. In some places this was 12 - 16 inches thick + 2 feet down the slope. This probably indicated a long occupancy by Neotoma. Lizards were very abundant in the rocks.

At 7:35 the bat flight started, most of the bats appearing first from the rock pile. The bats were mostly Eptesicus fuscus, although there were a few Tadarida mexicana. I collected 2 bats.

July 12,

From the trap line of 40 traps 4 Peromyscus m. sonoriensis and 4 L. crinitus were taken and no Neotoma, probably because the Neotoma were wary as fresh sign was abundant. The day was spent putting up bats, Peromyscus, 1 Lagotis beudanticus (col. by Wm Davis) and the 2 Sage hens. During the evening more bats were taken and notes written. The following birds were seen during the day: Lagotis

Arnold-1933

July 12.

(con)

bunting, Violet-green Swallow,
Hairy Woodpecker, — Nighthawk,
Woodhouse Jay, Western Robin,
Fox Sparrow (col. by W. Russell) and
Chipping Sparrow.

July 13,

JRA
#197

Hunted over rocky ledges and
up stream bank and along
upper meadow for birds. Took
1 song sparrow, 1 W. Robin
juvenile, 1 Tolmie Warbler, and
1 Hammond (?) Flycatcher Davis
shot this Hammond - I do not know.
Set 10 traps among rocks where
Neotoma sign was checked so
that during the next night the
human odor would be less. (D. N. M.)
At 11:30 took 4 Callospermophilus
and at 4: p.m. took 2 more
Callospermophilus from chest
traps. Apparently the Callo's are
using these rocks and the
cave rather than the Neotoma.
In the afternoon got up
one Callospermophilus and
3 birds. O. Lillland putting
up the Tolmie Warbler. Lab

Arnold-1933

July 13, (con.) in the afternoon set 20 rat traps (wooden) for Neotoma. This time I covered cave and rocky slope in nearly every likely place. In some places the dark, hard, molasses-like urine piles were 12-14 inches high and ~~had run~~ ^{had run} ~~summing~~ down hill for 2-3 ft. "Sign" was often 2-3 inches thick.

During the evening I shot one bat, a Big Brown.

July 14, 1933

Visited traps early and found just 2 specimens, one Neotoma lepida lepida, and the other Neotoma cinerea. These specimens were taken within 15 feet of each other and about 20 feet up the slope from the base. There were few droppings and no urine piles near. Rocks and dead brush ^{were} near but not within 10 feet of the trap.

At 7:15 Ole Lilleland and myself left ^{camp} for a days collecting trip toward the ridge. Our specimens were

Arnold-1937

July 14
(con)

put up by Frank W. Gorham and W and C. Russell.

As ~~we~~ were the ~~third~~ ^{of our party} group to go toward the ridge, certain things ^(larger mammals) were not to be collected. Deer had been studied and collected by the first party while the second trapped the meadows. My interest was chiefly birds while Silblard's was general.

I collected the first bird, a Tolmie Warbler at 7:30 in the rosebushes at the meadow. At the upper end of the meadow we put out a gopher trap piece and followed up the stream. at 8:25 shot a warbling Vireo beside the stream in willows and rose bushes. There was no meadow here. At 9:40 shot another ^{warbling} vireo in the aspens higher up the stream. At 10:15 a.m. saw many violet-green swallows flying around the willows & rocky cliffs above. These flew close enough to

Arnold-1933

July 14, 1933 have ^{been} ~~nesting~~. They were nesting
(con/ in overhung crevices on the
cliff facing S.W. . At 11:15 in
the second large meadow, while
working thru an aspen thicket
heard a noise and peering thru
bush saw 3 young magpies.
Took 1 dead & 2 living young
to camp. These were large
enough to run, hop, and fly
a slight amt. Ate lunch in
an aspen grove at the base
of the mtn. itself. After lunch,
amid a slight sprinkle of rain,
hiked thru the aspens trying to
locate singing birds. Heard but
could not collect. Lilleland
climbed to the ridge, 10,200, to collect,
while I then worked across the
face at about 9000-9200 to collect.
Among the mtn mahogany (~~Arceuthobium~~)
on the ridge to the north I
collected 1 Junco, 1 chickadee,
1 Chipping sparrow and 1 Audubon
warbler, while on the flat among
the ~~Artemisia~~ Artemisia I collected
2 Brewer Sparrows. On the

Arnold-1933

July 14, 1933

(con)

return trip I collected one Entomias m. pictus and, Callospermophilus. During the evening I collected one bat.

Summary: Tolmie Warblers were replaced by Western Warbling Vireos as the altitude became greater. Neotoma sign was abundant the whole journey, particularly on the NE slope. Clark's nutcrackers are less abundant here than they were near Mt. Jefferson, Toquima Range, although they appear here at a lower range. ^(7600 ft) Woodhouse jays are not very common. Red-shafted Flickers were heard over 9800 ft.

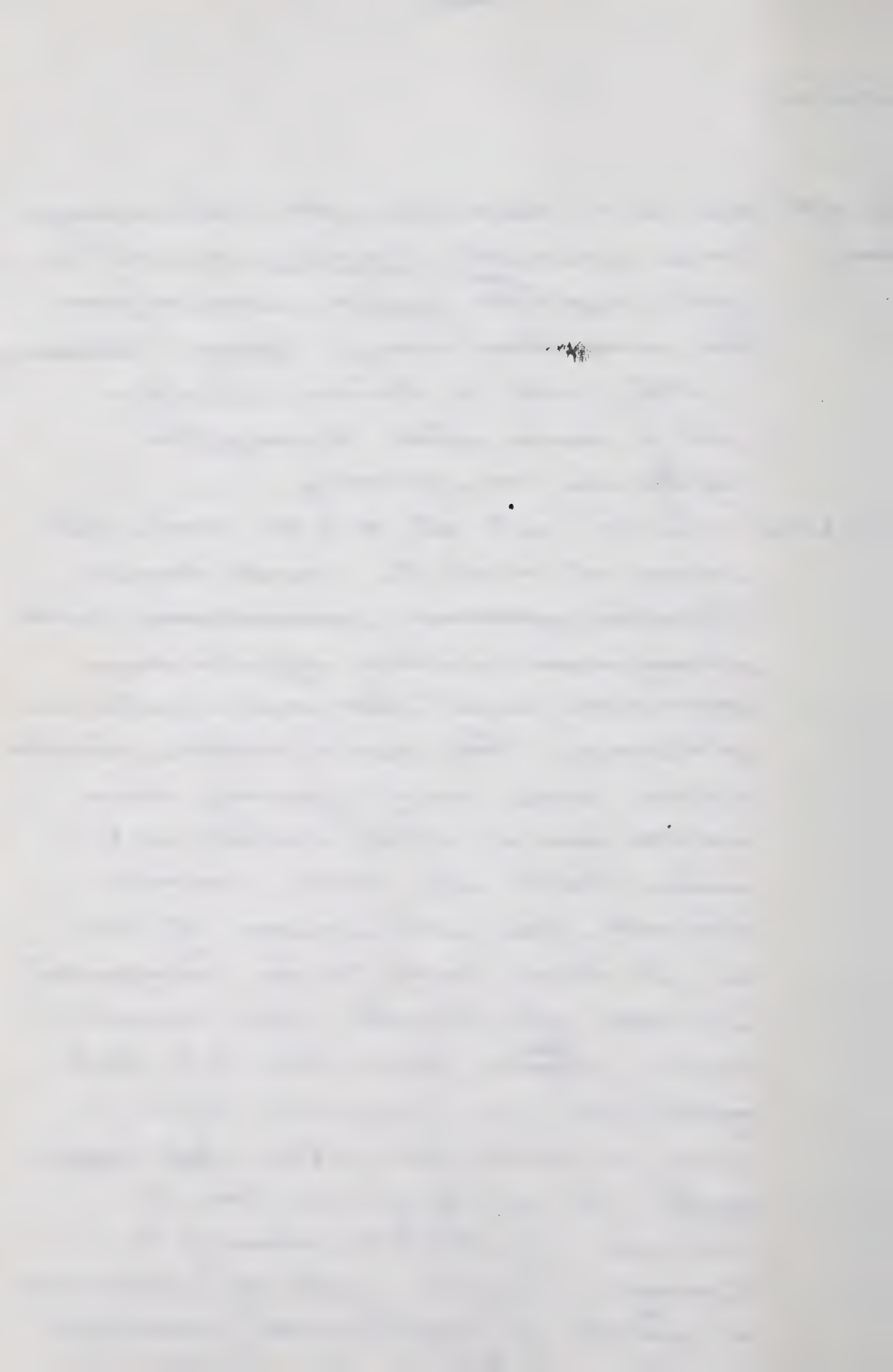
July 15, 1933

Left early to hunt conies on rock slide up the canyon. W. C. Russell, O. Lilliland, and myself. I collected 1 cony and W. C. Russell 3, a total of 4 for the party. Returned to camp by 9:15 A.M. Put up skins taken the day before but rain plus the cony hunting trip combined to reduce

Ar 1701d-1933

July 15, 1933. the time available for skinning!
 (con), As a result I was only able to
 put up the gopher, secured from
 the meadow trap, 1 cony, 1 Eutamias,
 1 bat, and 5 birds. Quite a
 bit of rain fell during the
 afternoon + evening.

July 16, 1933. Rolled out at 4:45 a.m. and left
 camp at 4:45 to hunt conies
 (Ochotona) ~~princeps nevadensis~~. Hunted
 myself near where yesterday's
 specimens were taken and noted the
 following. The rock slide inhabited
 by the cony is of granite, lichen
 covered and of flat rocks 3-8
 inches thick by 8-24 inches in
 diameter. The slide was at 30
 to 50 degree angle to the horizontal.
 Clumps of bunch in most
 cases ~~were~~ ^{were} from 40-75 feet
 apart but in some places
 more a bunch than this. See species
list. A party of 5 took 6
 conies by 9:45 a.m. + returned to
 camp. Spent rest of morning
 + first of afternoon writing
 notes. At 2:45 left camp



Ar 120 1d-1933

July 16 (con)

with Dr. Hall to set traps on the flat. Set twenty mice traps at a location in Fish ^{Spring} Creek Valley, 4 miles north of Fish Lake, 6600 ft., Nye Co., Nevada. Set gopher traps 1 mile north of the lake, and set 8 mice, 7 rat, and 2 steel traps $\frac{1}{2}$ mile from the lake near an abandoned house & corral. Between the gopher set and the house saw 1 flying rabbit and just beyond the house saw 1 sage hen & 2 young sage hens. See Species Acct. Drove out on lake and the two of us collected the following birds: Calif. Gull, 1, Goldeneye, 1, Yellow-headed Blackbird, 1 juv., Brewer blackbird ♀, Wilson Phalarope, 2, Mourning hawk, 1, Savannah Sparrow, 2, and 1 young sage sparrow. We saw 1 Blue heron but were unable to collect. A set of Nevada Red Winged B.B. eggs was taken & many adults seen. The marsh was fairly alive

Arnold 1933

July 16
(con)

Brewer, Red-winged, and Yellow-bellied.
with blackbirds. Killdeer,
phalaropes & others were common.
It would bear further study.

July 17,

Moved camp picking up traps
enroute. The catch consisted of one
gopher, kangaroo rats, Peromyscus
m. sonoriensis, and Reithrodontomys.
We drove down Fish Creek Valley
as far as the Hot ~~Spring~~ ^{Creek} road
and drove to Hot Creek via Page's
Ranch. Camp was made in
Hot Creek Range, 4 mi. N Hot Creek,
6400 ft., Nye Co., Nevada. The
road from camp to camp was
muddy in many places because
of rain.

Traps were set out on
the flat 4 miles north Hot Creek,
5900 ft., and at 6 1/2 miles North
also at 5900 ft.

Camp was made in 3 abandoned
brick kilns.

July 18,

Took 4 Perognathus nevadensis
from 60 traps, most of them ^(traps)
being set off by rain. 24 horned
toads (Phrynosoma platyrhinos)

Ar 17012-1933

July 18

Con 1

and 3 Lizards, 2 Lepid and 1 whip-tailed, were taken near the road. See Species notes on phrynosoma. Spent day putting up birds taken July 16 at Fish Lake. That afternoon put out 10 traps in meadow 4 mile west of Hot Creek, 10 on hillside at same spot, and 15 on the road south of Hot Creek. Rain prevented the further placing of traps.

July 19, 1933

From the traps took 1 Bufo from the meadow and 1 P. m. sonoriensis near the Hot Creek ranch. Nothing was taken south of the ranch. The poor catch was probably due both to the weather & to the poor area. The morning was spent taking care of these specimens & reptiles taken the previous day. While taking up traps the following birds were seen: Brewer Blackbirds, W. Kingbirds, English Sparrows, and Sage T. Warblers. An Oriole thought to be the Arizona ~~Headed~~ Oriole was

Arnold-1933

July 19, 1933

(con)

seen but could not be collected. The afternoon was spent putting up specimens taken by W. C. Russell & F. W. Gorham on the Ralston Valley, 34 mi. E & 1 mi. N. of Tonapah. This is approximately 5 miles south of Clark's Station, a local name. I put up Dipodomys deserti, D. ordii columbianus, D. levipes, and Onychomys.

Later in the afternoon I set 74 traps at a location in the valley 3½ miles east of Hot Creek. After setting traps collected 1 Brewer blackbird chinking it extra large. Probably due to peculiar condition of molt. While driving up the canyon to camp saw a group of 6-8 jays, probably Woodhouse, 2 doves, 1 song sparrow, and 1 kingbird.

Spent evening in camp.

July 20,

Caught 4 Perognathus nevadensis, 1 Microdipodops, 1 Dipodomys ordii columbianus, & 3 D. levipes in traps. Caught several "tails-only" and had many traps set.

Arnold-1933

July 20, 1933

(con)

off. A more carefully set trap-line would catch many more specimens. While returning from the trap-line saw an adult Red-tailed Hawk, several Kingbirds, and a un mockingbird.

During day put up specimens and wrote notes.

In late afternoon put out traps, 10 wooden rat and 30 wooden mice traps. All traps were set on the east side of the stream, from camp to the burned area about $\frac{3}{4}$ mile up stream. Some were set in the rocks, some under pine trees, and some on the stream bank for shrews ^{of the party}.

At about 9:30 p. m. E. Russell, Hall, Davis, Lillard, and Arnold, drove & reached $1\frac{1}{4}$ miles up the canyon to hunt bats in 3 kilns in which bat sign had been found in the afternoon. Seven bats were taken by means of blacklights, gun, and by

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Arnold-1933

July 20, 1933

(Con)

nts. Brown bats, E. fuscus, and Myotis volans interior were taken. The brown bats were carrying fully furred young. The party returned at 11:30 P. M. one lizard, uta, was taken.

July 21, 1933

From 40 traps took 5 ^{lepidog} Neotoma, 3 Peromyscus m. sonoriensis, 3 P. crinitus. I lost 3 traps, one a wooden rat-trap wired down! The Neotoma & P. crinitus were taken among the rocks while P. m. sonoriensis were taken near the water in shrub sets. During the walk un Robins, Spotted Towhees, and Jays were seen.

After noon camp was changed. We drove via Hot Creek, and Warm Springs to a location known as Old Mill. This mill is an abandoned ore crusher and the exact location is North end of Reveille Valley, Old Mill, 6200 ft., Nye Co., Nevada. Traps were set out in all directions

Arnold-1933

July 21, 1933.

(con)

from the Old Mill itself. Dr. Hall, O. Lillard, and myself set traps down the road to Reveille. I set 66 traps to the south of the road. At Old Mill Russell shot a Wilson Phalarope and we saw several Nighthawks, 2 non Mockingbird several old + many young Rock Wrens, and I bought 2 linnets (?). Dr. Hall saw a shrike. [note At Warm Springs, as at several other places, a captive mockingbird was heard as a songster. The mockingbirds however are very wild in the brush + are hard to approach.]

July 22,

From the 66 traps took 2 Dipodomys levis, 1 Peromyscus sonoriensis, + 11 Microdipodops. These were taken on the flat, in spite of numerous cow paths + tracks, than in a sandy wash in which I expected a heavy haul. The specimens were sexed, weighed, bled, and wrapped in oil paper + put in sacks. After this was taken care of camp was

Arnold-1933

July 22, 1933
(con)

again on the move. We took the road labeled Reveille and drove to the Reveille Mtns. We attempted to find New Reveille in these mtns but failed to find the location. We then drove via Arrowhead, Railroad Valley, to Nyala. After securing information as to water here, we drove to a cow-camp on Big Creek. Made camp here at about 12 p.m. Had dinner and started work on specimens at 3 p.m. Put up 6 mammals + 2 reptiles. Put out 30 traps, as had many specimens in camp to do, at a location $1\frac{1}{4}$ miles north of here on the slope leading out into the valley. The exact location of camp is Quinn Canyon Mtns, Big Creek, 5700 ft., Nye Co., Nevada. Ate supper at 8: p.m.

July 23, '33

Picked up 30 traps and took 1 Dipodomys d. columbianus, 1 Peromyscus m. sonoriensis, and 1 Perognathus nevadensis. Here at this camp have seen many

Arnold-1933

July 23, 1933.
(con.)

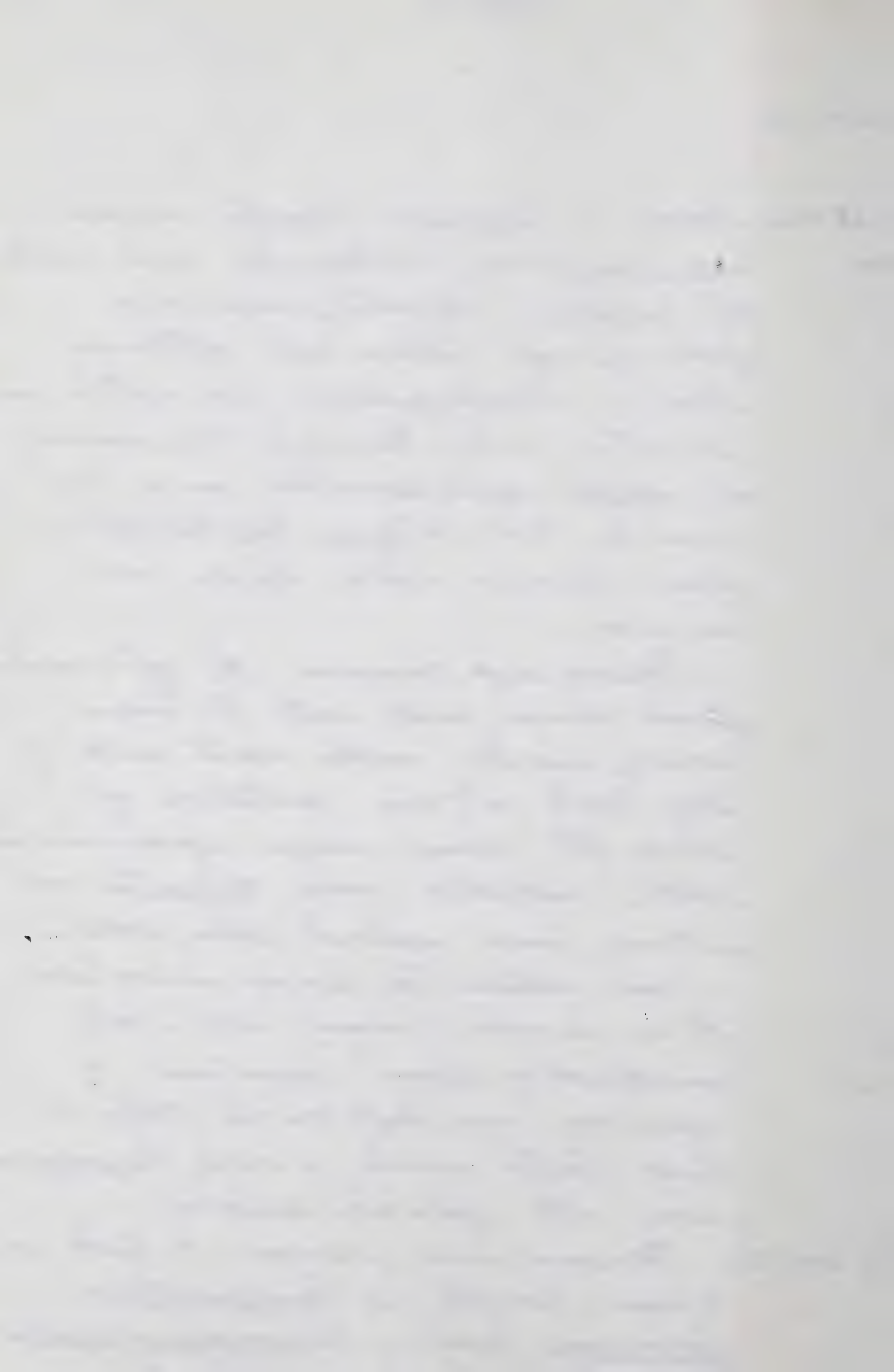
doves, 2 sparrow hawks, several we Kingbirds, 2 linnets, and nests of Orioles. Spent morning pulling up skins and afternoon blowing skulls, putting up reptiles and correcting notes. During the morning a shrike spent some time on a tree near the tent. A Brewer Blackbird flew down canyon while doves were common.

Drove up canyon $\frac{1}{2}$ of a mile from camp and set 50 traps among rocks on the east side of Big Creek at an altitude of 5800 ft. Saw sage sparrows and bats. Collected one Myotis on return, saw several other bats.

On return to camp was told of a snake (unner) that had swallowed & then spit out 4 specimens (mice) left on the table. A trap baited with a dead Peromyscus was set for the snake.

July 24, 1933

Drove up canyon & took up traps. Caught 6 Perognathus formosus, and 13 Peromyscus crinitus. They seemed to be found in



Arnold-1933

July 24, 1933

(con)

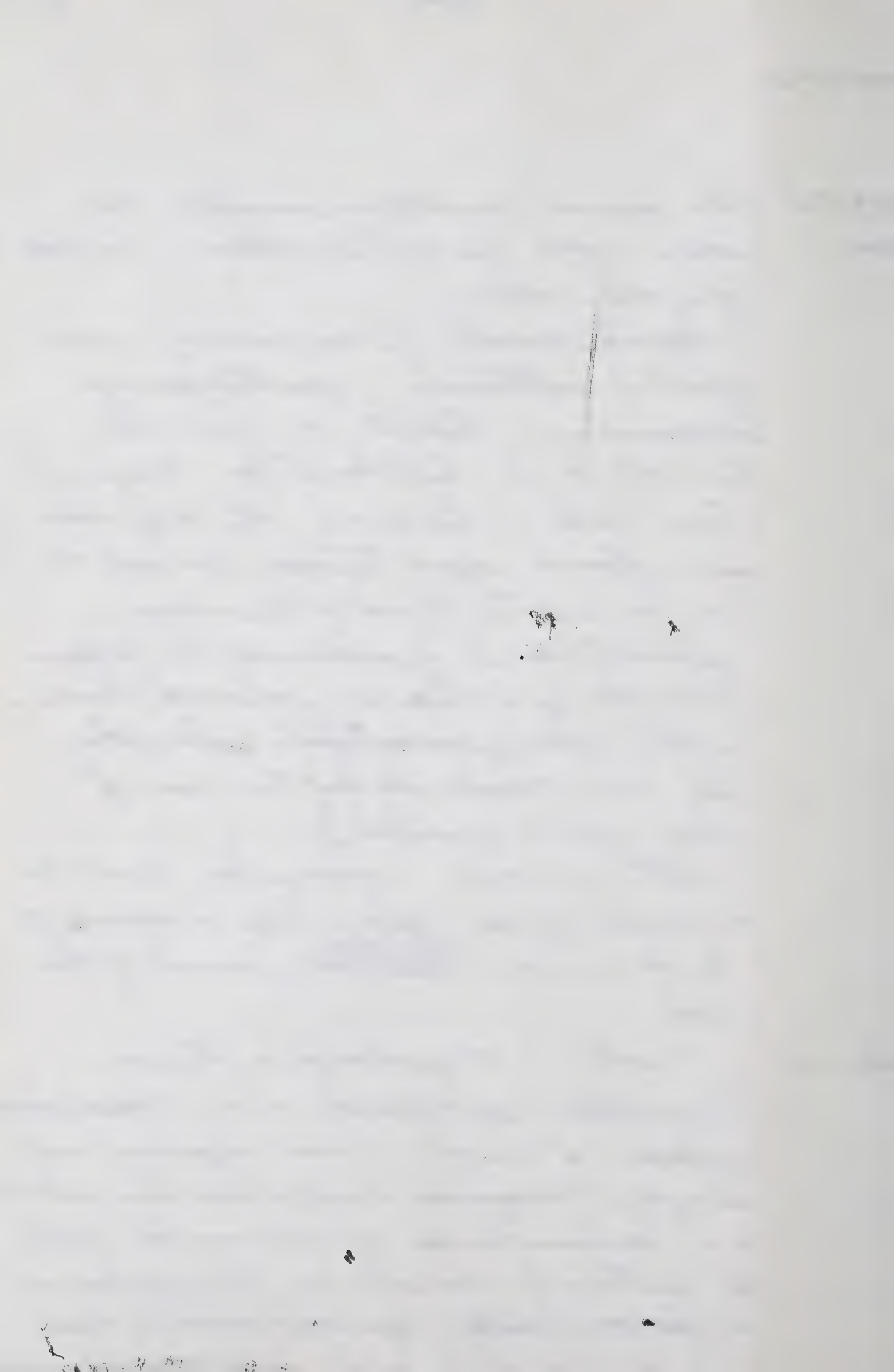
the same ecologic niche as they were caught within 10 feet of each other.

Spent most of morning and part of afternoon putting up specimens. Left at 4:30 with Dr. Hall & O. Lilleland to trap at Dry Lake. Arrived at dry lake & found no traps (except 40 in one coat). [Probably my fault as I gathered the traps together (230) and placed them with other material beside the car. never looked to see if they were packed!].

Set 15 traps among the dunes to the North of the lake. The outstanding bush is low Atriplex ~~tridentata~~, much of this dead.

July 25, 1933

Took 1 Dipodomys eximius, 1 Perognathus nevadensis, and 1 Microdipodops palidus: 6 traps were sprung and empty. everywhere tail marks indicated an abundance of animal life. O. Lilleland caught a Onychomys, a longer tailed species, which Dr. Hall & Lilleland both caught Microdipodops



Arnold-1933

July 25, 1933

(con)

The material ^(specimens) was wrapped in oiled paper and wet sacks. We then drove to Nyala where we joined the party, now moving toward our new camp. This new camp is in the Quinn Canyon mtns, Burned Canal Canyon, 6700 ft. elevation, Nye Co., Nevada. The trees are Pinon pine, mtn. mahogany, Holly Grape, the shrubs, Artemisia, and others.

Spent early afternoon skinning specimens and later put out 60 traps. A heavy rain occurred washing bait away & setting off some traps. These were reset before dark. Rained in evening & made a wet camp! Wrote notes & went to bed.

July 26, 1933

From the 60 traps took 1 Microtus mordax, 1 Peromyscus truei, and 12 Peromyscus m. sonoriensis. Spent morning putting up cher and a Cassin Purple Finch taken last night. Late in the afternoon walked up a narrow rocky canyon

Arnold-1933

July 26, 1933

(con)

to set traps. Set 40 in this canyon and on the hillside about. Saw one Callospermophilus and two Eutamias. Could not determine the species. Heard several jays. Returned to camp and walked upstream. took 1 Spotted Towhee, and 1 Bush-tit. Saw Nighthawks, jays, and heard a chickadee. Would estimate about 25 Bush-tits, 15 Nighthawks, 5 jays, 4 Towhees, and 4 Purple Finches in this part of the canyon. Set 10 more traps beside the stream. Heard a hummingbird, but could not see it. Also saw a Clark's Nutcracker.

July 27, 1933

From the 10 traps near the spring took 5 Peromyscus m. sonoriensis. From 2 in the flat took two Perognathus parvus. From the others in the canyon took 2 Peromyscus truei, 1 Callospermophilus, and 6 Peromyscus m. sonoriensis. Walked up ^{this} canyon and shot 1 Eutamias quadri^{coloratus}, and two



Arnold-1933

July 27, 1933

(con)

Eutamias dorsalis. Also shot a mtn chickadee. Saw 3 point black deer. The dominant tree was the Piñon pine although Cercocarpus was common. A few yellow and timber pines were seen. On the ground a low phlox was general. The altitude here I would estimate to be around 7800-8000 ft above sea level. Set 15 traps in the canyon for chipmunks.

Spent much of day in camp skinning specimens.

In evening shot bats, a species of Myotis, as they flew over the small reservoir near camp.

July 28, 1933

Caught nothing in chipmunk sets. Shot 2 Eutamias dorsalis, one Piranga ludoviciana, one Pyrocephalus curvatus, and one Parus gambeli. Spent morning putting up skins.

Afternoon shot one Carpodacus cassini and one Meizocoma columbiana just beside camp. Walked up right branch of Burned

Arnold-1933

July 28, 1933

(Con)

Corral Canyon about 3/4 mile to set traps. Saw adult Red-tailed Hawk, ^{not} Chickadee, Woodhouse Jays, and Bush Tits. The red-tailed hawk was heard giving his characteristic Cree! several times even before it was seen. It circled repeating this note. Two Spotted Towhees, and one Black-throated Gray Warbler, were collected. 43 traps were set for Woodrats, Peromyscus crinitus, and Microtus.

July 29, 1933

From the trap line took the following specimens: 2 Reithrodontomys, 1 Peromyscus truei, 1 Microtus mordax, and 18 Peromyscus m. sonoriensis. Shot male Black-throated ~~Violet~~ Gray Warbler. Spent most of day putting up skins. Put out traps across valley from camp, principally for Neotoma. Spent evening in camp.

July 30,

Took 2 Peromyscus crinitus and 4 P. m. sonoriensis from traps. Shot 1 E. dorsalis and 2 E. quadrivittatus.

Arnold-1933

July 30, 1933

con.

Shot a violet-green swallow and saw a white-throated swift. The caves in which Neotoma sign was abundant yielded no Neotoma but instead caught Peromyscus crinitus. The canyon below was very narrow with high cliffs. The mouth of the canyon was grown to Juniper and Piñon Pine, while the upper canyon side was covered with a mixture of white fir, Piñon Pine, and Limber Pine. The south-east slope was more heavily set to fir while fir was scarce on the opposite slope. Beneath the firs (6 in to 2 ft in dia.) Chaenactis(?) and maple mingled with the Cercocarpus.

The rest of the day was spent in camp preparing skins.

In evening shot bats. The party took several species; Myotis evotis, Myotis volans interior, a Myotis of questionable species, Eptesicus furcatus, Tadarida mexicana, Anthrozou palidus, and Nyctalus la sinensis.

Arnold-1933

July 31, 1933

Spent first portion of morning hunting with Mr. Davis in a canyon leading from the main Cherry Creek Pass Canyon. The location was cited as 7 mi. E. Nyala, Nye Co., Nevada. Collected Eutamias dorsalis, Eutamias amoenus, Pipilo maculatus, Spizella breweri, Popoioptila sp., Salpinctes obsoletus, and Carpodacus mexicanus. Saw Citellus grammurus was escaped in rocks. Mr. Davis took a Sylvilagus sp. grangeri and a Green-tailed Towhee. I observed Red-tailed Tanager, Black-headed Grosbeak, Woodhouse Jay, Red-shafted Flicker, and several other sps.

Aug 1,

Spent rest of day in camp. Left camp at 8:30 for California. Drove via Calloways Ranch (Current P.O.), Duckwater, Eureka, Austin, and East Gate to Fallon. Camped for night between Fallon and Sparks. On ride made a few observations. Ravens were seen several times between Nyala and Calloways Ranch. Many black birds were seen

Arnold-1933

Aug 1, 1933

(con)

at Duckwater. Mockingbirds were seen near (100 yds) of the Duckwater ranch and in the yard of an unknown ranch south of Calloways. Dr. Hall shot a Citellus mollis between Duckwater and Eureka. Near East Gate many jack-rabbits were seen, often in groups of 5-6. This was in the late afternoon and buck was a little taller than that passed earlier in the day. East of Fallon got a few quails were seen as well as black birds. The quails were most common in partially flooded pastures.

Aug. 2, 1933

Left camp east of Sparks, Nevada at about 4:45 PM. Drove to Reno, at breakfast, and continued on to the checking (quarantine) station. Passed without question and drove to ~~Deno~~ Truckee. Spent 3 hrs. waiting for repairs on Dodge Truck. Drove to Berkeley via Auburn, Sacramento, and Davis.

Arnold-1933

Aug 3, 1933
(con.)

Arrived at Museum of Vertebrate
zoology at 6:40 P.M.

During last leg of journey
made few observations. However,
just before reaching Dixon saw
50-60 ~~crows~~ gathered in pasture
beside highway. The contrasting
of California's crows with those
of Nevada took my attention
on the return.

August 2, 1933

John R. Arnold.

Holt-1933

Myotis

June 30, 1933

Toiyama Range, $1\frac{1}{2}$ mi. E Jefferson,
7700 ft., Nye Co., Nevada; during the
 evening, about 7:30, this specimen
 was taken while flying over
 the road leading up the canyon
 beyond our camp. The above
 caption is probably in error of
 50 ft in altitude as it is nearer
 7650 than 7700. Several bats
 were seen during the evening
 and Francis Gab collected a
 second specimen, apparently identical
 with mine. The specimen was
 a male.

J.P.A.
 #109

July 10, 1933

Hot Creek Range, 8 mi. W Tybo,
6700 ft., Nye Co., Nevada; during
 the evening from 7:30 to 9 p.m.
 5 members of the party, W. Russell,
 Fr. Gab, Fr. Gorham, J. Durant, and
 J. Arnold collected bats over
 a water tank known locally as
 Italian ^{Springs} Wells. Some 25 bats
 were secured although many
 were not found. Several species
 of Myotis, including M. ~~otis~~,
 were taken. J. Arnold nos 160, 161,
 + 162.

Arnold-1933

Myotis

July 28, 1933

Quinn Canyon Mtns., Big Creek, 5800
ft., Nye Co., Nevada: shot a Myotis
 as it flew slowly up the canyon
 among the pines. The canyon was
 narrow walled & the bats flew
 low & very slowly. These bats
 did not fly nearly as fast as
 the Myotis taken at Italian
Springs. [JPA no. 239.]

July 30, 1933

Quinn Canyon mtns., Burned
Corral Canyon, 6700 ft., Nye Co.,
Nevada: collected a small Myotis,
 species unknown or rather questionable.
 [JPA. no. 304.]

Arnold-1933

Eptesicus fuscus

July 11, 1933

Monitor Range, Greenmonster Canyon,
2500 ft., Nye Co., Nevada: at 7:35 p.m.
 a flight of bats started, most of
 which proved to be this species. The
 bats are slower flyers than
myotis and fly a straight
 course. All appeared to come from
 the rocky point and the cavern
 there although I found no bats
 there in the afternoon. A specimen
 collected contained a fully formed
 embryo 29 mm. long.

July 12.

The flight started a little
 earlier as it was cloudy. This
 time there were a few Mexican
 free-tailed bats in the flight. These
 are more difficult to hit.

July 14

The flight started at 7: p.m.
 this evening but fewer bats
 appeared. Probably because there are
 less of them! A bat taken contained
 1 embryo 29 mm long. A captive
 bat gave birth to a young mob
 bat today.

Ar 1701d-1933

Callospermophilus l. tripidus

June 29, 1933 Toquima Range, 1½ mi. E Jefferson,
7750 ft., Nye Co., Nevada: shot
 one specimen among the rocks
 and saw one other.

July 2, 1933 Toquima Range, N slope Toquima
Mtn., 9400 ft., Nye Co., Nevada: shot
 one specimen in jumble of
 big rocks on east facing
 side slope. Antamias were common
 in the same rocks. The growth
 was sagebrush, small willows,
 and nearly a grove of aspen.
 During a trip from camp at
 7600 to this altitude they were
 commonly seen scampering
 thru broken rocks on rocky
 slopes.

July 4, 1933 Toquima Range, 1 mi. E Jefferson,
7600 ft., Nye Co., Nevada: this
 species was seen quite often
 today, this morning, in a
 short hike near camp. An
 adult female and an immature
 female were collected. Several
 others were seen. As mentioned
 above both Antamias and
 this species were seen in the

Arnold-1933

Callospermophilus l. tripidus

July 4, 1933
(con)

group of rocks. At one moment 2 Eutamias and 1 Callospermophilus ran from me into one clump of sagebrush.

July 11, 1933

Hot Creek Range, 8 mi. W Tybo, 6700 ft., Nye Co., Nevada:

This location was marked by the absence of this species. I saw none and I believe no one saw any.

July 16, 1933

Monitor Range, Greenmonster Canyon, 7500 ft., Nye Co., Nevada: in the region surrounding this camp this species is very common. July 13, in this canyon, in a pile of rocks I caught 6 specimens in 2 hours with 10 traps. These specimens were taken of among rocks covered with Neotoma sign, possibly they have replaced the Neotoma. Of these specimens 5 were young + 1 large female. In nearly any direction several could be found. They were found up as far as 9000 ft. to my knowledge.

Arnold-1933

Callospermophilus l. tripidus

July 21, 1933 Hot Creek Range, 4 mi. N Hot Creek,
6400 ft., Nye Co., Nevada: saw
 nor collected none of this
 species at this location. Amnispem-
ophilus and Eutamias dorsalis seemed
 to replace it. This seemed true
 of the Hot Creek Range, 4 mi. N. of
Tybo, 6700 ft., Nye Co., Nevada. It
 may be the altitude or other
 conditions, at least they were about:

July 31, 1933 Quinn Canyon Mtns.; Burned
Carroll Canyon, 6700 ft., Nye Co., Nevada:
 while this species was taken a
 shot distant above camp, none
 was found near camp, and they
 were not common even in the
 other canyons. E. dorsalis was
 common here and seemed to replace
 the Callospermophilus.

Arnold-1933

Eutamias m. pictus

June 29, 1933

Toquima Range, 1½ mi. E Jefferson,
7750 ft., Nye Co., Nevada; shot
a male in rocks at base
of piñon pine. They are
very wild & active.

June 30, 1933

Another specimen collected 50
ft. lower in same location
as above.

July 2, 1933

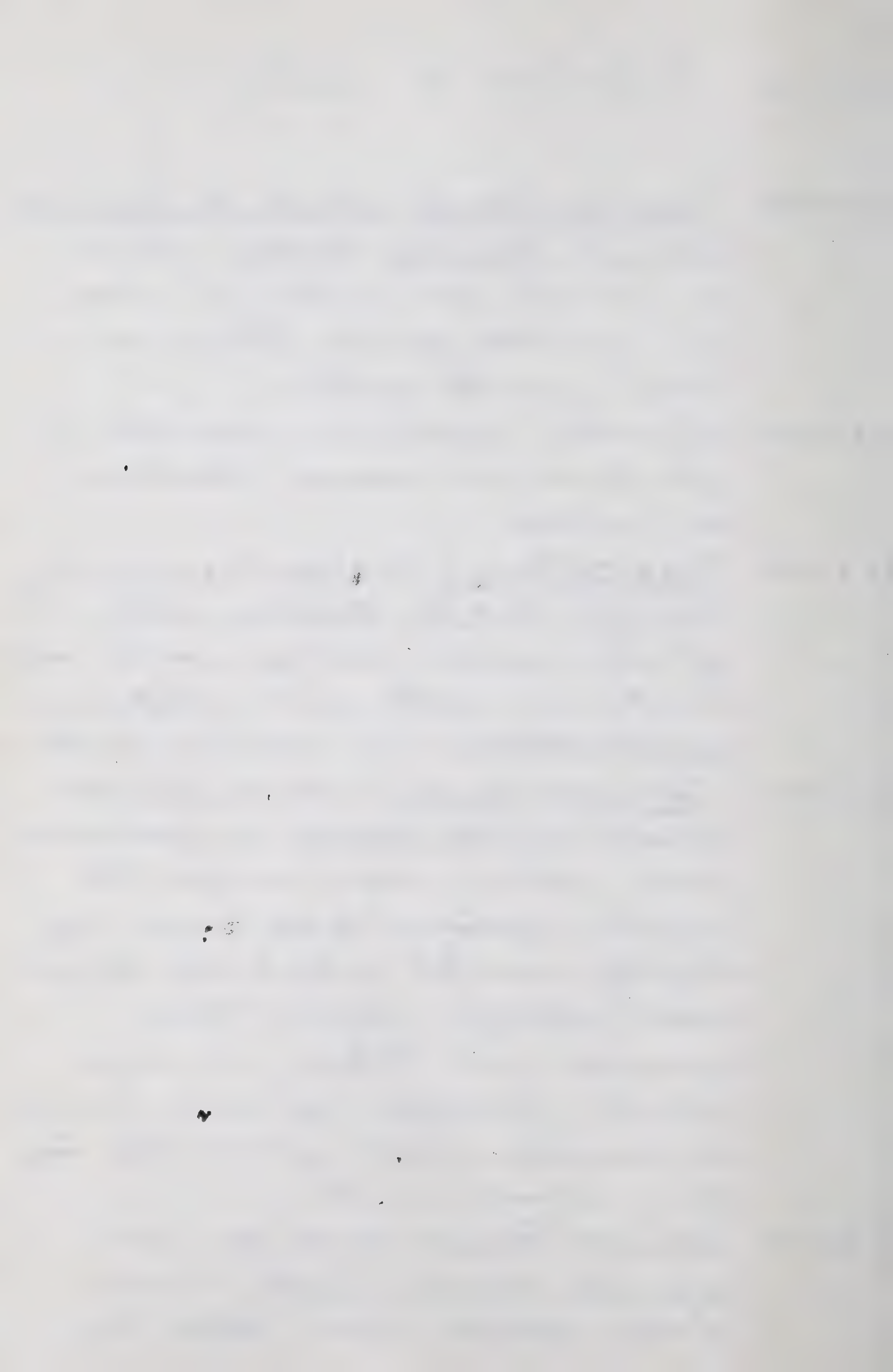
Toquima Range, N slope Toquima Mtn,
9400 ft., Nye Co., Nevada; shot one
of this species among rocks along
with a Callos and a Eutamias
quadrivittatus in nearly rocks.

July 4, 1933

Toquima Range, 1 mi. E Jefferson,
7600 ft., Nye Co., Nevada; 2 specimens
were taken near camp. The
smaller specimen (no. 22) was very
brightly marked while the larger
was slightly worn. These
specimens were taken in sage
brush beneath piñon pines,
the smaller shot from the top
of a dead bush.

July 11, 1933

Hot Creek Range, 8 mi. W Tybo,
6700 ft., Nye Co., Nevada; none
of this species was taken or
seen.



Arnold-1933

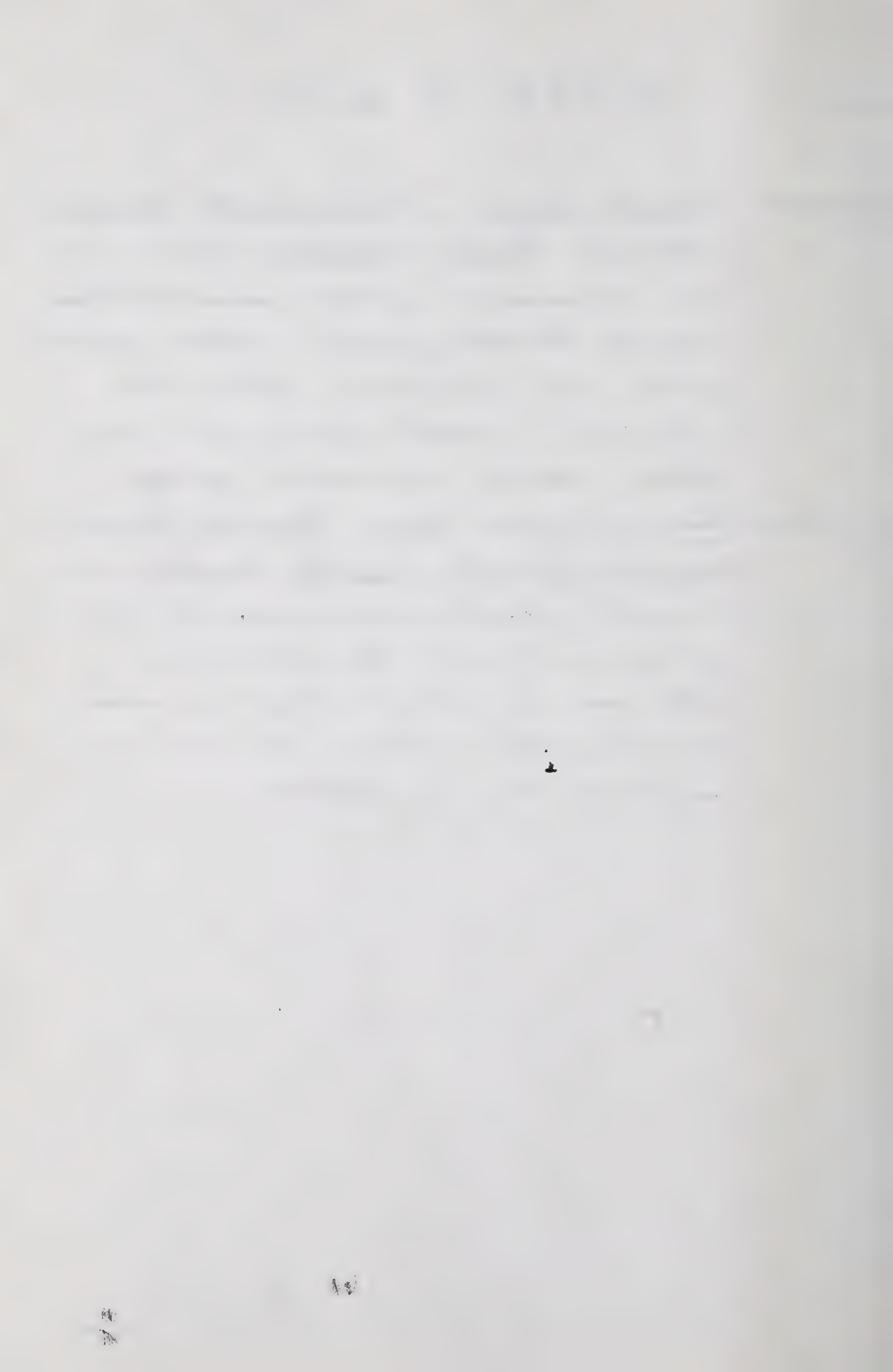
Eutamias m. pictus

July 16, 1933

Monitor Range, Greenmonster Canyon,
7500 ft, Nye Co., Nevada: this was
 the dominant species around this
 camp. Several young were seen
 near the meadow above the
 stream. Several specimens were
 taken, all in summer pelage.

July 31, 1933

Quinn Canyon Mtns., Burned Corral
Canyon, 6700 ft, Nye Co., Nevada: on
 a walk about a mile south west
 of here, toward the location
 cited as 7 mi. E Nye, saw
 several of this species but not as
 commonly as E. dorsalis.



Arnold-1933

Eutamias quadrivittatus

July 2, 1933

Toquima Range, N slope Toquima Mtn., 9400 ft., Nye Co., Nevada: shot another specimen of this species. This one was shedding or rather molting as ~~o~~ was the one taken on June 30. The pelage is much darker than usual and the markings are dim or invisibb. The pelage reminds one of an animal covered with soot, particularly over the head and shoulders.

July 4, 1933

Toquima Range, 1 mi. E Jefferson, 7600 ft., Nye Co., Nevada: another specimen with worn pelage was taken today, but less worn than the previous specimens.

July 10, 1933

Hot Creek Range, 8 mi. W Tybo, 6700 ft., Nye Co., Nevada: took one specimen below a Pinon pine along the dry creek bed. It was a full adult ♂.

Arnold-1933

Eutamias dorsalis

July 19, 1933

Hot Creek Range, 8 mi. W Tybo,
6700 ft., Nye Co., Nevada: took
 one specimen from trap line.
 Was taken under a trap set under
 a dead piñon at the edge of a
 rocky slope. It was alive when
 taken, held by the tail. Upon
 dissection and weighing it seemed
 much better formed than *E.*
quadricoloratus. The body is
 wonderfully muscled and compact.
 A living specimen raced across
 a nearly perpendicular rock
 surface with ease.

July 21, 1933

Hot Creek Range, 4 mi. ^{N. Hot Creek} ~~W. Tybo~~, 6400
ft., Nye Co., Nevada: Saw 2 or 3
 of this species, shot at one, and
 several were collected by party.
 Those I saw were climbing in
 currant bushes. They seemed to
 inhabit all parts of the canyon.
 Here ~~Pinon~~ pine, willow, poplar,
 and *Artemisia* predominated although
 annuals, Rose-bushes, and currant were
 fairly general.

next page

Arnold-1933

Eutamias dorsalis

July 31, 1933

Quinn Canyon Mtns., Burned Corral Canyon, 6700 ft., Nye Co., Nevada; in hunting today made a few observations on this species. ~~Wm~~ Davis was with me and made some of these observations. First, this species was found more commonly on the flat than on the hill top. Second, many more were seen in a small shrub than in trees. This small shrub ~~was~~ was covered with small fruits, apple-like in nature. Dr. E. R. Hall took a specimen of this shrub. Third, his fruit was found in their cheek pouches indicating it an article of food.

Arnold-1933

Thomomys quadratus fisheri

July 14, 1933

Monitor Range, Greenmonster Canyon, 7600
Ht., Nye Co., Nevada caught a
specimen of this species in a
freshly opened mound at the upper
end of the meadow. The mounds
extend to the edge of the sagebrush
but this specimen was taken
in a moist but not dry grassy
plot. The soil was loose & the
grass made a thin (2-3 in) sod.
The trap was set about 18 feet from
the stream bank. [J. R. A. # 178.].

7

Arnold-1933

Perognathus nevadensis

July 18, 1933

Hot Creek Range, ~~44~~, 6½ North of
Hot Creek, 5900 ft., Nye Co., Nevada:
 took 2 adults at the first and
 2 young at the second location. The
 ground was dark with small
 rocks. The shrubs were small
 Artemisia about 8-10 inches high,
 occasionally 2 feet. No runways were
 seen but one specimen was taken
 in front of a small, flat-opening,
 sandy burrow. They must have
 been taken before the heavy
 rain which came before 9: P.M.

Arnold-1933

Perognathus parvus

June 30, 1933

Toquima Range, 1 1/2 mi. E Jefferson,
7750 ft., Nye Co., Nevada: trapped one
male on edge of dry wash beneath
Ephedra bush. only one caught
in area although several traps
were nearby.

July 1, 1933

Trapped one from a series of
20 traps set beneath shrubs
along rocky wall of above
wash. Trapped one near the
same location as June 30. The
pouches were filled with
rolled oats, the bait.

July 7, 1933

Morrison ^{Valley} Range, 9 miles East Toquima
Mtn., 7000 ft., Nye Co., Nevada: put up
a specimen taken by Paul T. Wilson.
Four or five were taken by the party
last night. This specimen was
carrying seeds, apparently of the Compositae,
and 1 larger seed.

July 10, 1933

Hot Creek Range, 8 mi. W. Tybo,
6700 ft., Nye Co., Nevada: took one
specimen among rocks near a
trap containing a Peromyscus
crinitus. Not a typical? Perognathus
habitat.

Arnold-1933

Perognathus parvus

July 27, 1933 Quinn Canyon Mtns., Burned
 Corral Canyon, 6700 ft., Nye Co., Nevada;
 caught 2 specimens, an adult ♂
 and a juv. ♂, in traps set
 near the rocky hillside just under
Artemisia. None was taken
 in the canyon.

Arnold. 1933

Perognathus formosus

July 24, 1933

Quinn Canyon Mtns., Big Creek, 5800 ft.,
Nye Co., Nevada: Caught six specimens
of this species among the rocks
at above location. The other
species trapped was Peromyscus
crinitus. This is the largest
Perognathus trapped on this
trip. The long hairy tail and
the smoky color readily disting-
uishes this species.

Arnold. 1933

Dipodomys ordii columbianus

July 7, 1933

Monitor Valley, 2 mi. E Toiyama Mtn.,
7000 ft., Nye Co., Nevada: put up
2 specimens collected by Paul T. Wilson
from this locality. My trap
line in similar territory yielded
only Microdipodops while that
of F. Gale 100 yds away caught
2 Dipodomys? This species is
of medium size + fairly light
colored.

July 9, 1933

Ralston Valley, 15 1/2 mi. NE Tonopah,
5900 ft., Nye Co., Nevada: took
2 Dipodomys here, one of which
was of this species. The 2 species,
D. e. columbianus, and D. leucurus were
taken in the same sand dunes
near sage clumps + in the same
type of set.

July 10, 1933

9 mi. W, 3 mi. S Tybo, 6300 ft.,
Nye Co., Nevada: 3 members of the
party caught large number of this
species at this location. They were
taken on sand among sage clumps.



Arnold, 1933

Dipodomys microps levipes

July 9, 1933 Ralston Valley, 15½ mi. NE Tonopah,
3800 ft., Nye Co., Nev.: took one of
 this species in same trapline with
D. ordii. It is of a darker tinge and
 in all measurements slightly larger
 than D. ordii.

July 19, 1933 Ralston Valley, 34 mi. E + 1 mi. N
Tonopah, 5650 ft., Nye Co., Nevada: W. C.
 Russell and F. W. Gorham took a
 number of specimens of these at the
 above location. One specimen of
D. deserti was taken.

July 20, 1933 Hot Creek Valley, 3½ mi. E Hot Creek,
5650 ft., Nye Co., Nevada: this species
 seemed to predominate among those
 of this genus taken. Many of
 the mouth parts and the intestines
 were a yellow-green, seemingly colored
 by a pollen.

Arnold-1933

Dipodomys deserti

July 19, 1933 Ralston Valley, 34 mi. E + 1 mi. N Tonopah,
 5650 ft., Nye Co., Nevada: put up
 one specimen taken by W. C.
 Russell at above location. This
 was the only one of this species
 from about 25 Dipodomys taken
 by Russell + F. W. Gorham. It is
 very much larger + lighter than
 other species + is characterized
 by it + ^{only} third toe.

Arnold-1933

Microdipodops

July 7, 1933

Monitor Valley, 9 miles E Toiyama Mtn.,
2000 ft., Nye Co., Nevada: Caught 4
 specimens of this genus in my traps
 last night. Two were living, two
 dead. The species resembles greatly
 their namesake + kinsman, the
 Kangaroo rat, and was found in
 similar localities. The workings
 were fairly common, yet from
 57 mice traps only 4 were caught
 and only these species. Those caught
 were taken near holes + mounds, a
 miniature of that of Dipodomys.

July 9, 1933

Ralston Valley, 15½ mi. N.E. Tonopah,
5800 ft., Nye Co., Nevada: Caught
 one among sand dunes. Caught in
 open between sage clumps.

July 10, 1933.

9 mi. W., 3 mi. S. Tybo, 6300 ft.,
Nye Co., Nevada: 3 members of
 the party took large numbers of
 this species here, a short trip
 from the base camp in the hills.
 E. R. Hall took 32 specimens of this
 species from 103 traps. Others
 had similar experiences.

July 20, 1933

Hot Creek Valley, 3½ mi. W. Hot Creek, 5650 ft., Nye
Co., Nevada: took one specimen from 24 traps.

Arnold-1433

Microdipodops

- July 22 Neend Reveille Valley, Old Mill,
6200 ft., Nye Co., Nevada: caught
 eleven Microdipodops about 1 mile
 east of above location. Most were
 taken on ground tramped over
 by cattle than on smooth, fine
 sand in a wash nearby.
- July 24, Railroad Valley, 9 1/2 mi. E.
New Reveille, 5100 ft., Nye Co.,
Nevada: helped catch a
 specimen alive at 6: p.m. It
 was seen from the car and
 the chase followed. We dug 8-10
 inches into the burrow into
 which it darted and it ran past
 our hands into another burrow.
 This burrow was shallow,
 evidently a place of refuge & a
 food storage. It ^(the animal) was kept
 alive for study. It uttered
 no sound as captured. Several
 other burrows opened were
 found to be plugged with
 sand at about 8 inches below
 the surface.

Arnold-1933

Peromyscus crinitus

- June 30, 1933 Toquima Range, 1 mi. N.E. Jeffersen,
7600 ft., Nye Co., Nevada: put up
specimen of this species taken by
F. Gale. The longer tail readily
distinguishes it from P. m. sonoriensis.
It occurs in the same habitat.
- July 8, 1933 Monitor Valley, 8 mi. E Toquima Mtn,
7100 ft., Nye Co., Nevada: put
up specimen taken by Paul
Wilson from the above location
at foot of hills.
- July 10, 1933 Hot Creek Range, 8 mi. W Tybo,
6200 ft., Nye Co., Nevada: took
one specimen in rocks while
setting for Peromyscus truei.
- July 12, 1933 Monitor Range, Greenmonster Canyon,
7500 ft., Nye Co., Nevada: took
4 P. crinitus out of 8 Peromyscus
taken. All were from among the
rocks on a rocky point near
camp.
- July 21, 1933 Hot Creek Range, 4 mi. N Hot Creek,
6400 ft., Nye Co., Nevada: caught
one adult male & one young
among the rocks. Piñon pine and
artemesia were the common plants
with scattered grass (rye grass) clumps.

The first of these was the Declaration of Independence, which was adopted on July 4, 1776. This document declared that the thirteen colonies were no longer part of the British Empire, but were now free and independent states. The second was the Constitution, which was adopted on September 17, 1787. This document established the framework for the federal government, and provided for the separation of powers between the executive, legislative, and judicial branches. The third was the Bill of Rights, which was adopted on September 12, 1791. This document guaranteed the basic rights of the citizens, such as the right to free speech, the right to a fair trial, and the right to bear arms. These three documents are the foundation of the United States government, and they have shaped the country's history and identity ever since.

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Arnold-1933

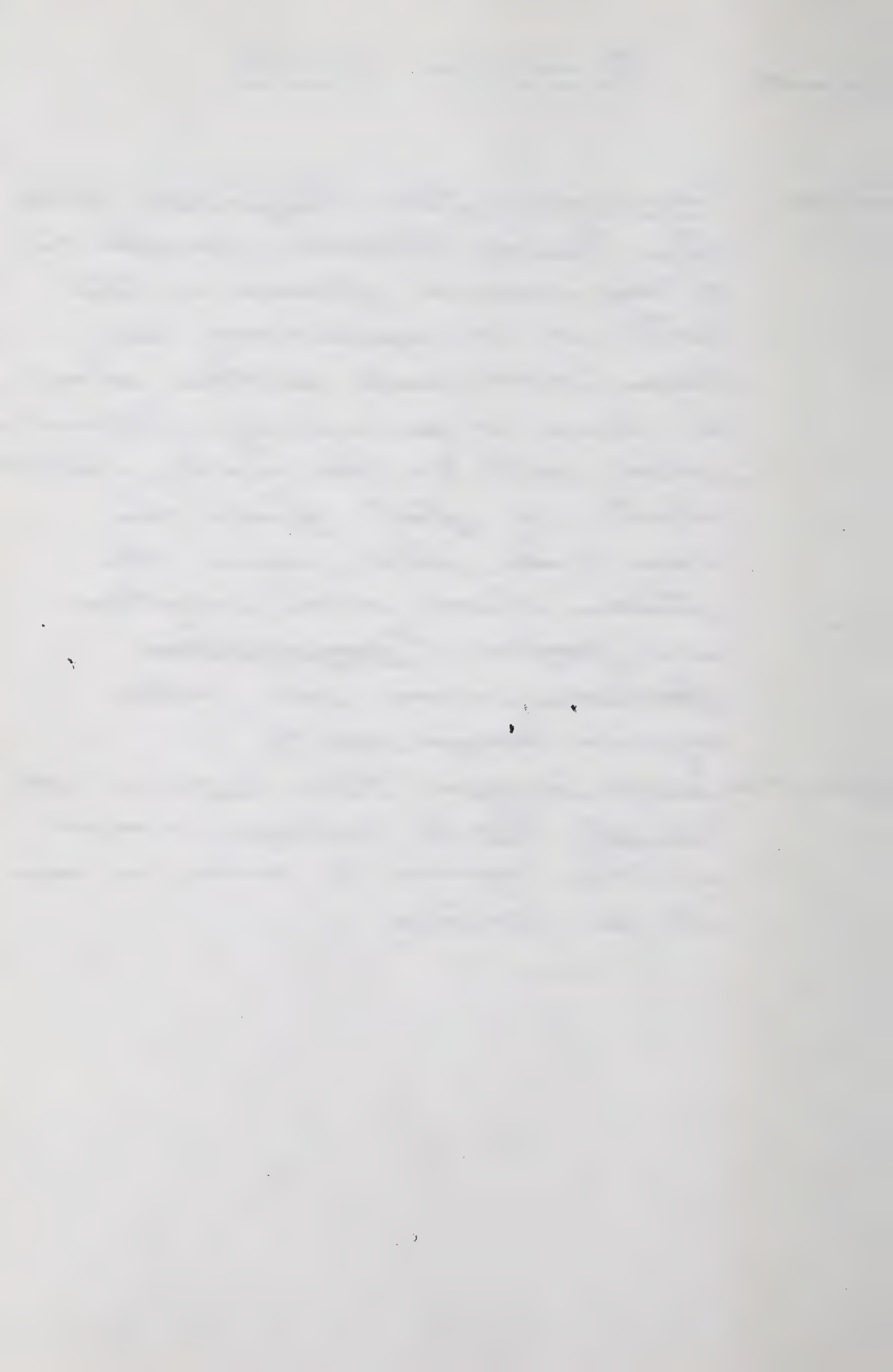
Peromyscus crinitus

July 24

Quinn Canyon Mtns., Big Creek, 5800
ft., Nye Co., Nevada: caught 13
 of this species from a total
 catch of 19 specimens. All
 traps were set either along
 the base of a rocky hillside or
 where set on the rocky hillside.
 About 30 feet from the
 base of the hill ran the
 stream lined with willows
 and poplar. Perognathus
famosus was the other
 species trapped nearby.

July 30, 1933

Quinn Canyon Mtns., 7 mi. E Nye,
7000 ft., Nye Co., Nevada: caught
 2 of this species in caves, in traps
 set for Neotoma.



Arnold-1933

Peromyscus maniculatus sonoriensis

X

June 29, 1933

Toquima Range, 1 mi. E Jefferson, 7600 ft.,
Nye Co., Nevada; several collected
by party.

June 30, 1933

Toquima Range, 1½ mi. E Jefferson, 7850 ft.,
Nye Co., Nevada: trapped one
female in dry wash under
small bush; many runs in
wash seemed to be made by
this species.

July 7, 1933

Monitor Valley, 9 mi. E Toquima Mtn.,
7000 ft., Nye Co., Nevada: put up 2
skins today of specimens trapped
by Paul Wilson. Several members
of the party took specimens here
although I caught none. one
female contained 5 embryos, 2 in the
right, 3 in the left horn, 15 mm long.

July 9, 1933

Ralston Valley, 15½ mi. N E Torgah,
5800 ft., Nye Co., Nevada: took
this species on sand dunes in
traps set for Microdipodops and
Dipodomys. In the same
trapping Dipodomys, Microdipodops,
Perognathus, and Peromyscus
crinitus were taken.

July 12, 1933

Monitor Range, Greenmonster Canyon
7500 ft., Nye Co., Nev.: took 4 specimens

Arnold-1933

Peromyscus m. sonoriensis

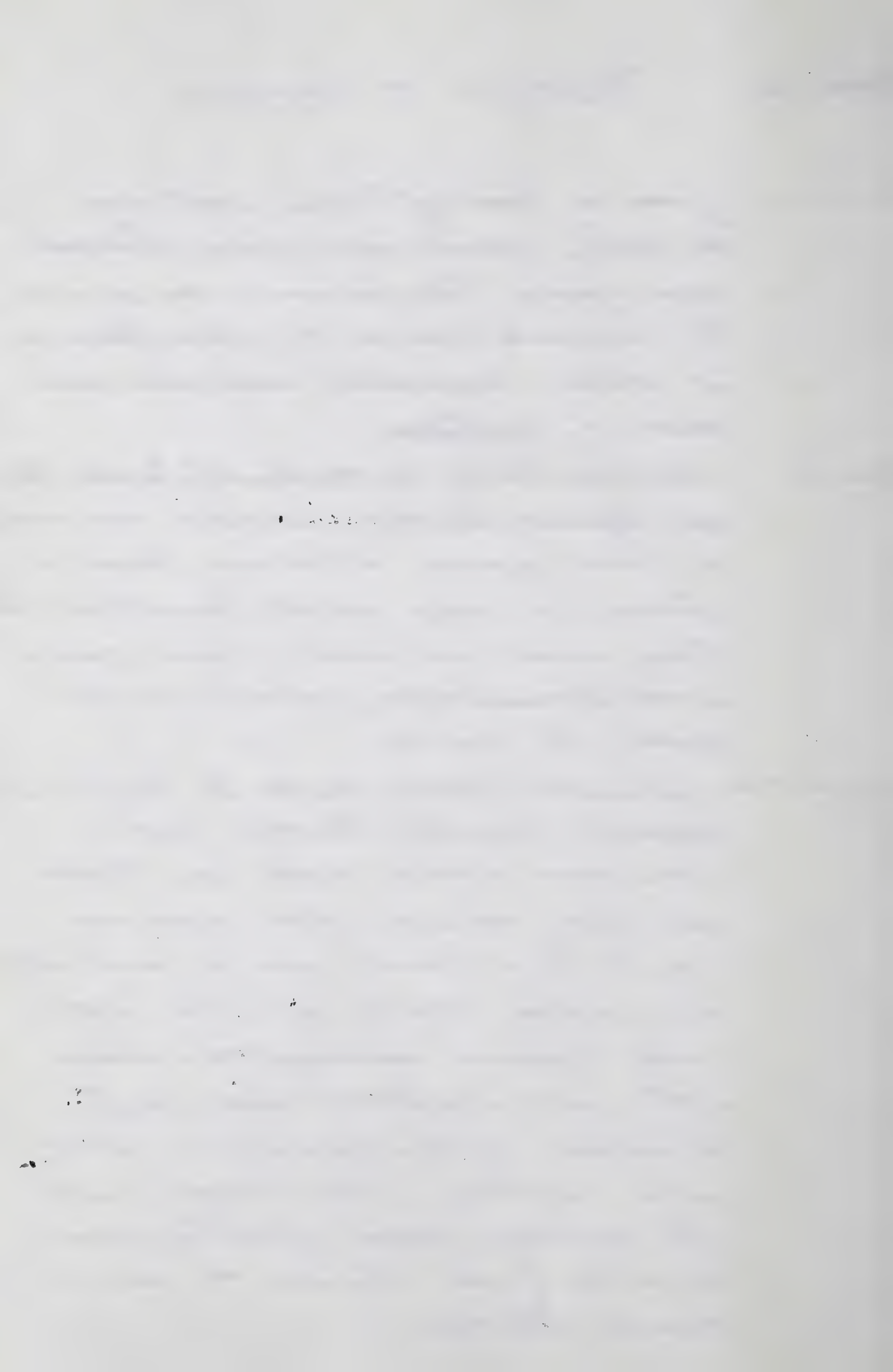
from a line of traps set in a rocky point near camp. Several were young. The runs were similar to chipmunk runs in some places & in others apparently coincided with those of Neotoma.

July 19,

Hot Creek Valley, 4 mi. W Hot Creek, 5900 ft., Nye Co., Nevada: caught one male of this species at above location from 10 traps set at location. The trap was set under low grease wood (Sarcobatus) about 30 feet from the road.

July 21, 1933

Hot Creek Range, 4 mi. N Hot Creek, 6400 ft., Nye Co., Nevada: took 4 specimens along creek in traps set for shrews. one specimen must have been some out into the water. none of this species was taken among the rocks but was replaced there by P. crinitus. All specimens taken were adults. The traps were set among mint plants near the edge of the stream or among grass blades.



Arnold-1933

Peromyscus m. sonoriensis

July 26, 1933

Quinn Canyon Mtns., Burned Corral ^{canyon} Mtns., 6700 ft., Nye Co., Nevada; caught 12 of this species in this locality. They were trapped on the hillside, flat, stream bank, and rocky ledges. They were taken in the same rocky ledge as P. truei.

July 29, 1933

Quinn Canyon Mtns., Burned Corral Canyon, 6800 ft., Nye Co., Nevada; caught 18 of this species in traps set among the traps for P. crinitus and P. truei. - Caught one P. truei.

July 30, 1933

Quinn Canyon Mtns., [Burned Corral Canyon], 7 mi. E Nye Co., 7000 ft., Nye Co., Nevada; caught 4 specimens and 2 P. crinitus in caves in which Neotoma sign was very abundant. These caves were set high on the cliff.

Arnold - 1933

Peromyscus truei

July 10, Hot Creek Range, 8 mi. W Tybo
6700 ft., Nye Co., Nevada: took one
 specimen among rocks on south
 facing slope. There were only
 2 taken in the camp. Apparently in
 same rocks with P. crinitus and
Perognathus parvus.

July 26, 1933 Quinn Canyon Mtns., Burned Corral
Canyon, 6700 ft., Nye Co., Nevada;
 caught one specimen (♂) in a
 rocky canyon on a rocky ledge.
 The only one taken by anyone
 that night.

July 27, 1933 Quinn Canyon Mtns., Burned
Corral Canyon, 6800 ft., Nye Co., Nev.:
 Two specimens were trapped one
 in the canyon, and one on the hillside.
 I believe it is this species that
 steals the bait from rat
 traps yet run away with
 mine traps when either are
 set on the hillside. (One
 tail in a mouse trap is my
 only evidence)

Arnold-1933

Neotoma lepida lepida.

July 14, 1933

Monitor Range, Greenmonster Canyon,
7500 ft., Nye Co., Nevada: Took one
 of this species within 15 feet of
 a trap holding a bushy-tailed
 rat. Sign of rat was very
 abundant all thru the rocks
 but 20 traps one night and, 5
 the next took only 2 rats
 although 10 traps during the day
 took 6 Callospermophilus.

July 21, 1933

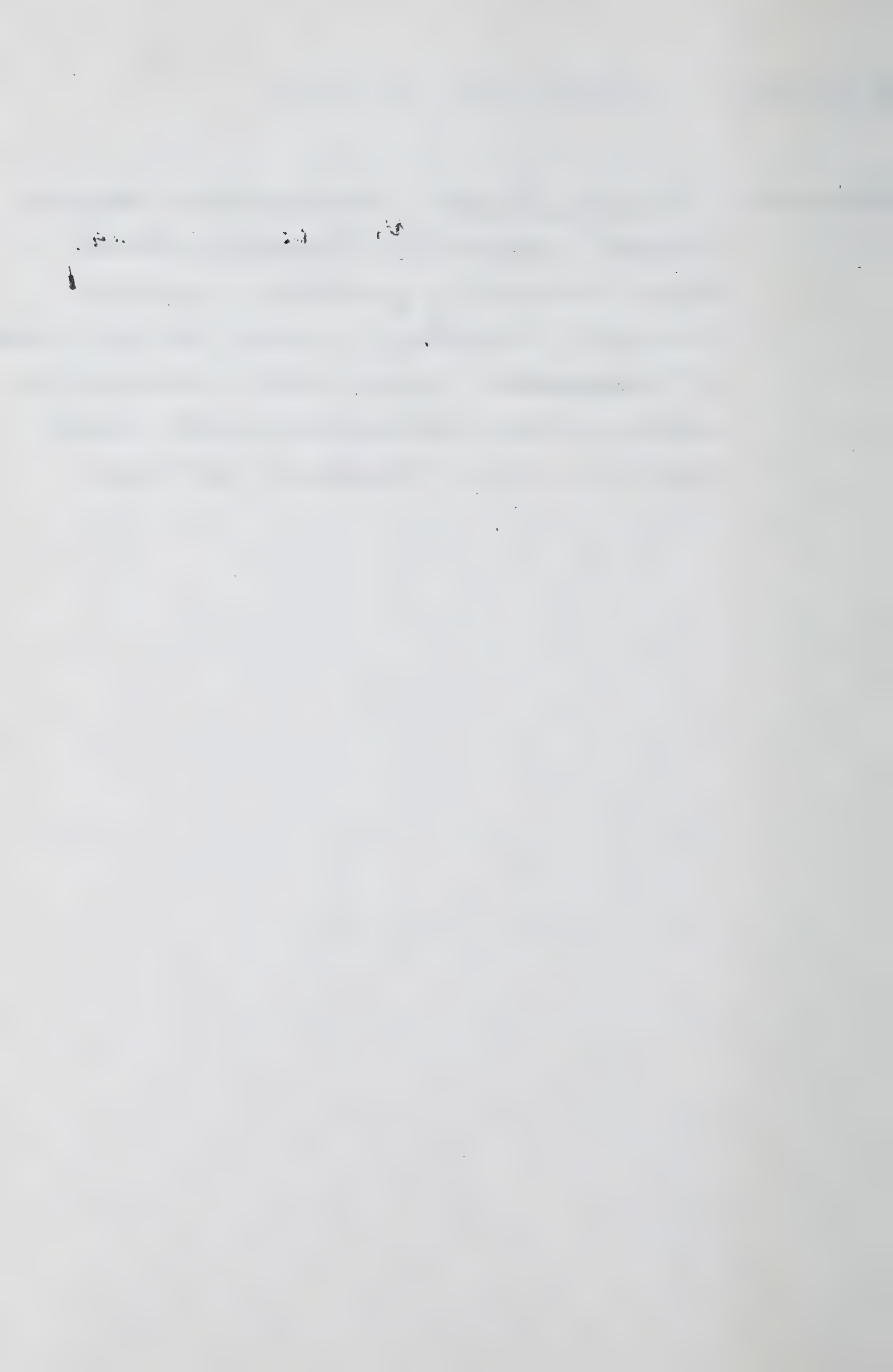
Hot Creek Range, 4 mi N Hot
Creek, 6400 ft., Nye Co., Nevada: took
 5 specimens along rocky
 slope of canyon. Two females
 evidently were suckling young.
 Very little sign was seen
 and all houses seemed to be
 among the rocks.

Arnold-1933

Neotoma cinerea

July 14, 1933

Monitor Range, Greenmonster Canyon,
7500 ft., Nye Co., Nevada: took
large male of this species.
among rocks near camp. Took
N. lepida near the same place.
Sign was abundant but both
species were difficult to trap.



Arnold - 1933

Microtus mordax

July 1, 1933 Togaima Range, 1½ mi. E. Jefferson,
7750 ft., Nye Co., Nevada: trapped 2
 specimens in dry wash, traps
 being set under dry bush. Caught
 1 female with embryos 24 mm
 in length, 2 in right + 3 in left
 horn. There was no grass
 nearer than 50 ft. & then only
 a few spears.

July 8, 1933 Monitor Valley, 8 mi. E. Togaima
Mtn. (Peak), 7100 ft., Nye Co., Nevada:
 put up a specimen taken by
 Ole Lillland, a female containing
 5 embryos. 3 were in the right and
 2 in the left horn and were
 about 6 mm in length. The
 specimen's skull was crushed
 by a trap.

July 26, 1933 Quinn Canyon Mtns., Burned Corral
Canyon, 6700 ft., Nye Co., Nevada: Caught
 a specimen (♀) about 10 feet from
 the creek. It was caught before
 10: p.m. as it had suffered a
 heavy shower and no rain
 fell after 10: p.m.

Arnold-1933

Cory

Ochotona princeps nevadensis

July 5, 1933

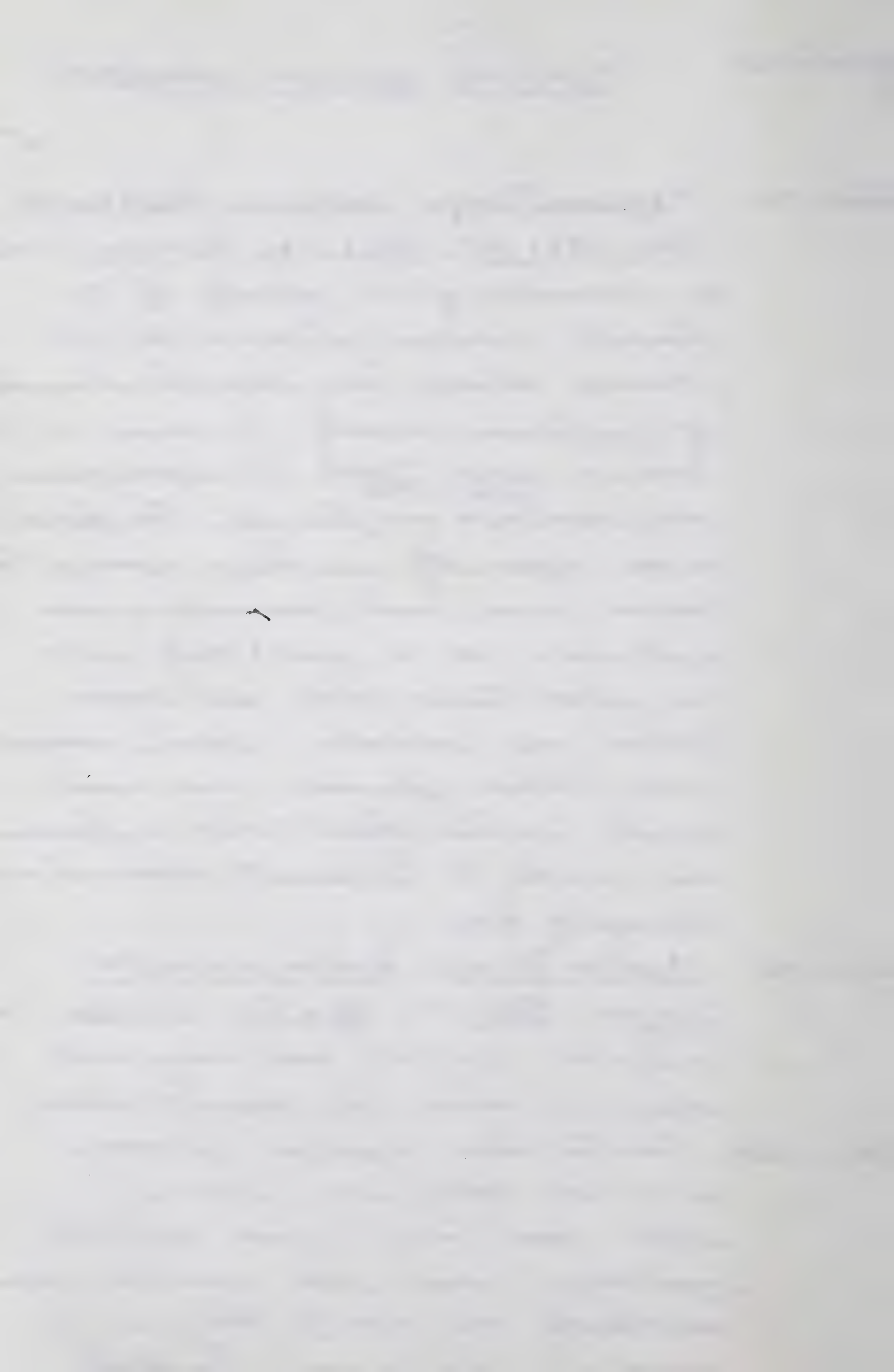
Toiyana Range, SW slope Jefferson Peak, 8700 ft., Nye Co., Nevada; as a member of a party of 4 hunted conies from 3-3½ hours along a north branch of Jefferson creek. I saw 4-5 conies and took 2 specimens, ^{put by Dr. Hall} one male and one female. The female was apparently suckling young. The conies were not common nor yet rare as 4 people took 12 in a short time and all were taken as singles. Both mines were taken from one rock slide while Hall took 3 from one slide. S. Durant observed one carrying hay.

July 15, 1933

Monitor Range, Green monster Canyon, 8200 ft., Nye Co., Nevada; in rock slide collected one cony and saw 2 others. a granite slide.

July 16, 1933.

Hunted this species from 6-9 A.M. today in same slide that one was collected yesterday. Saw no conies myself although the party took 6. I made the following habitat



Arnold-1933

Ochotona p. nevadensis

July 16,

Monitor Range (con) notes while watching the slide. The slide is composed of granite talus and the pieces are flat and vary from 3-8 inches thick and from 8-24 inches in diameter. The rocks were covered with many species of lichens and the slide gave a rusty-brown color to the hillside. The slide rested at ^afrom 30-50 degree angle with the horizontal. Clumps of bushes were scattered over the slide, usually from 40-75 feet apart, but sometimes more or less. These clumps were composed of mtn. Mahogany (Cercocarpus), Currant (Ribes), Sage brush (Artemisia tridentata?) and rose (Rosa). Beneath these shrubs were a few annuals and clumps of bunch grass. Here and there, beneath the edges of rocks, were small clumps of sedgely fl. grass. (clumps 2-3 inches across). In small crevices none was found. No droppings or hay was found.

Jack-Rabbit

Arnold-1933

Lepus c. deserticola

July 8, 1933 Monitor Valley, 9 mi. E Toiyama Peak,
8000 ft., Nye Co., Nevada; jackrabbits
 are more common here than
 in other locations visited. I
 have seen at least 4 adults
 and 4-8 young within a
 1/4 mile radius of the camp. Probably
 many more are present. The
 adults are exceptionally large. They
 are not very wild.

July 21, 1933 Quinn Canyon Mtns, Big Creek,
5700 ft., Nye Co., Nevada; saw
 young jack-rabbit last night.
 They have not been common
 at any camp. Nowhere have I
 seen as many as at Monitor
 Valley.

Arnold-1933

Sylvilagus n. grangeri

June 29, 1933

Toiyama Range, 1 1/2 mi. E Jefferson,
7750 ft., Nye Co., Nevada; one
specimen of this species was
shot among the thick sage
bush of a dry gulch. The hillsides
were covered with a scattered
growth of piñon pines. Abundant
sign nearby indicated that it
spent some time there. No
others were seen. The specimen
was a female. Upon arriving
at camp, ~~the~~ Davis immediately
gutted it to make a blood
test thus certain measurements
were not taken. The meat was
consumed as food.

Pigmy RabbitSylvilagus idahoensis

Arnold-1933

July 6, 1933

Monitor Valley, 9 miles E Toquima Mtn.,
7000ft., Nye Co., Nevada; saw 4
specimens while riding out to
set traps. attempted to shoot but
they reached their holes too soon.
Saw much sign and several
colonies of holes while setting
traps. They seemed to prefer the
low open sagebrush to the more
open dense clumps.

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that proper record-keeping is essential for the integrity of the financial system and for the ability to detect and prevent fraud. The document also outlines the responsibilities of individuals involved in the process, including the need for transparency and accountability.

The second part of the document provides a detailed overview of the various methods used to collect and analyze data. It describes the different types of data sources, such as surveys, interviews, and focus groups, and explains how this information is used to identify trends and patterns. The document also discusses the challenges associated with data collection and analysis, such as ensuring the reliability and validity of the data.

The third part of the document focuses on the development of effective communication strategies. It discusses the importance of clear and concise communication and provides guidelines for writing reports and presentations. The document also outlines the different channels through which information can be disseminated, such as newsletters, websites, and social media.

The fourth part of the document discusses the importance of ongoing evaluation and improvement. It emphasizes that the effectiveness of any program or initiative can only be determined through regular assessment and feedback. The document also provides guidelines for conducting evaluations and for using the results to make improvements.

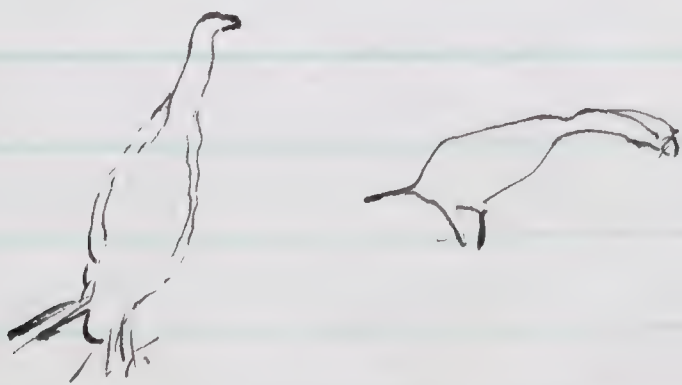
Sage Hen

Arnold-1933

Centrocercus urophasianus

July 11, 1933 Fish Spring Valley, 2 mi. N Fish Lake, 6600ft., Nye Co., Nevada; took two males beside road. Both were very fat. Dr. Hall collected a male also. No females were seen nearby.

July 16, 1933 $\frac{1}{2}$ mile N. Fish Lake: took a few notes on a female & 2 young. The young sage hens ran like quail running nearly erect with head bobbing at every step. The head seemed to be held as erect as possible; the tail was held at an angle. Unlike the typical quail - they run under brush.



Arnold-1933

Nevada Sage Sparrow
Amphispiza nevadensis

July 16, 1933

Fish Spring Valley, Fish Lake, 6500
ft., Nye Co., Nevada: I shot
 an adult female marsh hawk
 flying over the tule-sat area
 to the north of the lake. As
 the hawk lit, dead, this young
 sage sparrow was found in
 its talons. Its weight was
 11.1 grams; it was nearly fully
 feathered; it was still warm
 and had been clutched thru
 the rump & back, the head &
 shoulder untouched. no. 191 J. Arnold.

Arnold-1933

Fox Sparrow
P. iliaca

July 5, 1933 Toiyana Range, 1 mi. E Jefferson,
 7600 ft., Nye Co., Nevada: J. R. Arnold,
 nos. 123-129 incl. Discovered two
 fox sparrows ^{giving} causing an
 alarm by chirping, scratching,
 calling etc. Shot one adult
 and upon reaching the fallen
 bird found it lying upon
 a watersnake, the latter having
 a young bird ^{fox sparrow} in its mouth
 and a lump a few inches
 back of the head. A brief
 search revealed a nest
 2½ ft from the ground above
 these animals. The nest contained
 3 young fox sparrows. The
 snake was easily captured as
 its mouth was lodged over
 the young bird. The two adults,
 snake, and young birds were
 collected. The adults were
 preserved as skins and the
 others as alcoholic specimens.

The nest was built of
 fibers of bark, about 6 inches overall,
 and was in the lower branches
 of an alder about 15 ft from
 the main stream.

Arnold-1933

Phrynosoma platyrhinus

July 18

Hot Creek Range, 2-10 mi. North
Hot Creek, 5900 ft., Nye Co., Nevada:
 E.R. Hall, O. Lilleland, and myself took
 24 of the horned toads in a
 short time. All were taken within 4 ft.
 from the road. Some were much larger
 than others but all seemed like same species.

Some were tinged with orange, some with
 brown and one was a decided yellow-anter.
 One specimen was deformed & had several
 horns missing.

